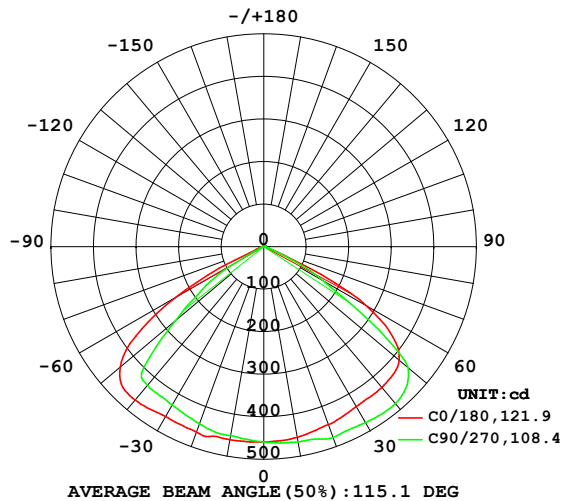


LUMINAIRE PHOTOMETRIC TEST REPORT

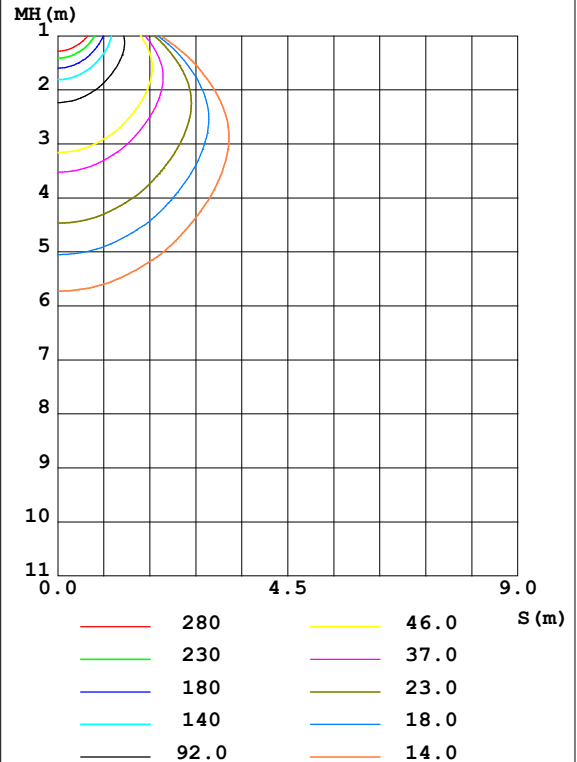
NAME: EPE-EM22-HO-AT-1H	TYPE: 9W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.0756	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 145.06 lm/W			
MODEL	EPE-EM22-HO-AT-1H	I _{max} (cd)	484.0	S/MH (C0/180)	1.57
NOMINAL POWER (W)	9.55	LOR (%)	100.0	S/MH (C90/270)	1.44
RATED VOLTAGE (V)	22.75	TOTAL FLUX (lm)	1385.3	η UP, DN (C0-180)	0.4, 52.3
NOMINAL FLUX (lm)	1385.28	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.5, 46.8
LAMPS INSIDE	1	η up (%)	0.9	CIBSE SHR NOM	1.50
TEST VOLTAGE (V)	22.75	η down (%)	99.1	CIBSE SHR MAX	1.55

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT: lx)



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: MEDIUM
Temperature: 25.3DEG
Operators: hgl
Test Date: 2024-06-06

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.446
Humidity: 65.0%
Test Distance: 8.690m [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	455.1	460.3	466.0	464.6	460.9	455.1	450.7	451.2	0- 10	43.76	43.76	3.16,3.16
20	445.0	459.7	477.5	470.4	464.1	449.1	443.1	444.7	10- 20	129.8	173.5	12.5,12.5
30	434.6	458.5	477.6	476.1	461.5	445.6	430.2	429.2	20- 30	210.0	383.6	27.7,27.7
40	431.9	457.4	481.6	482.5	470.4	446.1	425.5	423.3	30- 40	284.1	667.7	48.2,48.2
50	415.7	445.8	442.8	416.0	440.6	371.2	268.9	405.2	40- 50	337.4	1005	72.6,72.6
60	281.2	321.1	163.9	161.9	240.0	83.04	85.89	269.6	50- 60	276.7	1282	92.5,92.5
70	16.29	49.10	16.58	11.07	16.28	4.813	5.004	27.30	60- 70	82.77	1364	98.5,98.5
80	2.051	4.504	3.198	1.145	1.437	0.8093	0.8824	2.435	70- 80	7.631	1372	99,99
90	0.8755	0.6621	1.205	0.1053	0.2447	0.5991	0.6663	0.6206	80- 90	1.160	1373	99.1,99.1
100	0.7075	0.2502	0.1572	0.3400	0.6645	0.9465	0.9494	0.6355	90-100	0.5799	1374	99.2,99.2
110	1.024	0.5772	0.4006	0.8713	1.340	1.551	1.580	1.212	100-110	0.8315	1375	99.2,99.2
120	1.669	1.212	1.023	1.490	2.087	2.267	2.286	1.942	110-120	1.399	1376	99.3,99.3
130	2.265	1.868	1.685	1.997	2.703	2.851	2.885	2.644	120-130	1.847	1378	99.5,99.5
140	2.793	2.456	2.239	2.558	3.226	3.409	3.387	3.169	130-140	2.030	1380	99.6,99.6
150	3.528	3.114	2.912	3.258	3.774	3.926	3.945	3.730	140-150	2.012	1382	99.8,99.8
160	4.069	3.828	3.623	3.789	4.070	4.124	4.235	4.162	150-160	1.744	1384	99.9,99.9
170	4.274	4.171	4.066	4.111	4.245	4.229	4.275	4.279	160-170	1.162	1385	100,100
180	4.332	4.293	4.281	4.279	4.320	4.288	4.281	4.274	170-180	0.4053	1385	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 833.93 lm

%lum = 60.2%

%lamp = 60.2%

Conical surface Flux(120deg): 1281.7 lm

%lum = 92.5%

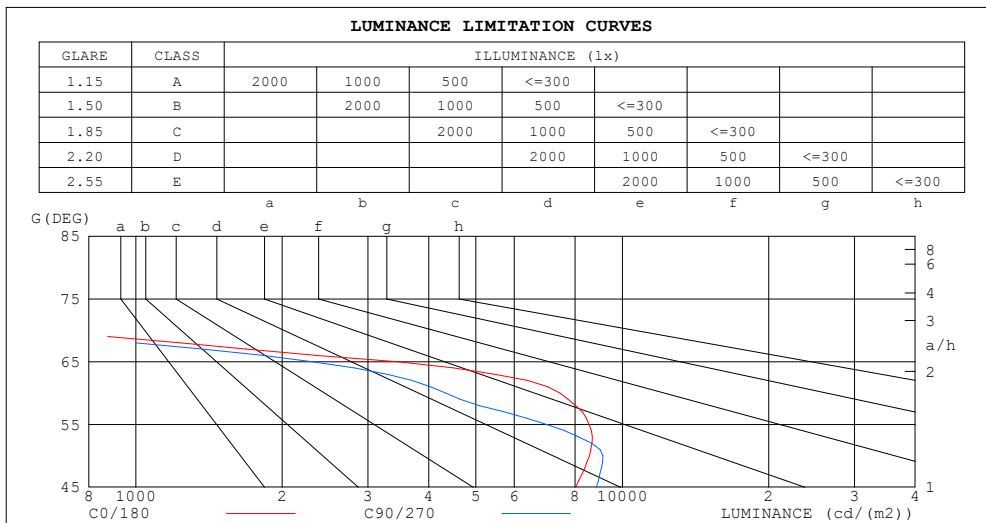
%lamp = 92.5%

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:hgl
 Test Date:2024-06-06

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.446
 Humidity:65.0%
 Test Distance:8.690m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

NAME: EPE-EM22-HO-AT-1H	TYPE: 9W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.0756	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	180	234
80	156	244
75	331	407
70	630	642
65	3464	2309
60	7442	4342
55	8554	7002
50	8556	9122
45	8017	8839

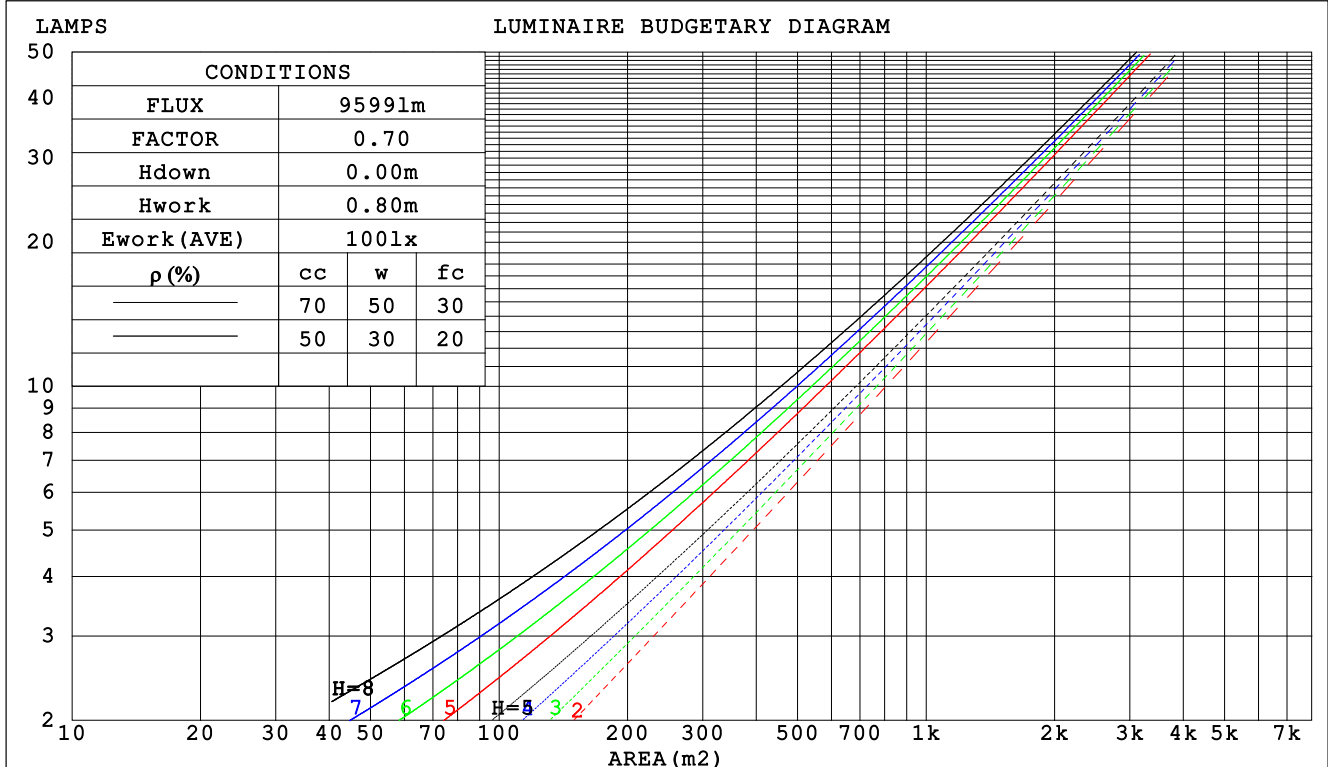
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: MEDIUM
Temperature: 25.3DEG
Operators: hgl
Test Date: 2024-06-06

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.446
Humidity: 65.0%
Test Distance: 8.690m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME: EPE-EM22-HO-AT-1H	TYPE: 9W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.0756	Shielding 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	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.01	1.01	1.01	.99
1.0	1.07	1.03	1.00	1.04	1.01	.98	1.00	.98	.95	.96	.94	.92	.92	.91	.89	.87
2.0	.95	.89	.84	.93	.87	.83	.89	.85	.81	.86	.82	.79	.83	.80	.77	.75
3.0	.84	.77	.71	.82	.76	.70	.79	.74	.69	.77	.72	.68	.74	.70	.66	.64
4.0	.75	.67	.60	.73	.66	.60	.71	.64	.59	.68	.63	.58	.66	.61	.57	.55
5.0	.67	.58	.52	.66	.58	.52	.63	.56	.51	.61	.55	.51	.60	.54	.50	.48
6.0	.60	.51	.45	.59	.51	.45	.57	.50	.45	.55	.49	.44	.54	.48	.44	.42
7.0	.54	.46	.40	.53	.45	.40	.52	.45	.39	.50	.44	.39	.49	.43	.39	.37
8.0	.49	.41	.35	.48	.41	.35	.47	.40	.35	.46	.39	.35	.45	.39	.34	.32
9.0	.45	.37	.31	.44	.37	.31	.43	.36	.31	.42	.36	.31	.41	.35	.31	.29
10.0	.41	.33	.28	.41	.33	.28	.40	.33	.28	.39	.32	.28	.38	.32	.28	.26



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: MEDIUM
Temperature: 25.3DEG
Operators: hgl
Test Date: 2024-06-06

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.446
Humidity: 65.0%
Test Distance: 8.690m [K=1.0000]
Remarks:

WEC AND CCEC

NAME: EPE-EM22-HO-AT-1H	TYPE: 9W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.0756	Shielding Angle:

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	.251	.143	.045	.244	.139	.044	.230	.132	.042	.218	.126	.040	.206	.120	.039		
2.0	.249	.136	.042	.242	.134	.041	.231	.128	.040	.220	.123	.039	.210	.119	.037		
3.0	.239	.127	.038	.234	.125	.038	.223	.121	.037	.213	.117	.036	.205	.113	.035		
4.0	.227	.118	.035	.222	.116	.034	.213	.113	.034	.204	.110	.033	.196	.107	.032		
5.0	.214	.109	.032	.210	.108	.031	.202	.105	.031	.194	.102	.030	.187	.100	.030		
6.0	.202	.101	.029	.198	.100	.029	.191	.098	.028	.184	.095	.028	.177	.093	.028		
7.0	.190	.094	.027	.187	.093	.026	.180	.091	.026	.174	.089	.026	.168	.087	.026		
8.0	.179	.088	.025	.176	.087	.024	.170	.085	.024	.164	.083	.024	.159	.082	.024		
9.0	.169	.082	.023	.166	.081	.023	.161	.080	.023	.156	.078	.022	.151	.077	.022		
10.0	.160	.077	.021	.157	.076	.021	.152	.075	.021	.148	.073	.021	.143	.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	.197	.197	.197	.168	.168	.168	.115	.115	.115	.066	.066	.066	.021	.021	.021	
1.0	.183	.163	.146	.156	.140	.125	.107	.096	.087	.062	.056	.050	.020	.018	.016	
2.0	.173	.139	.110	.148	.120	.095	.102	.083	.066	.059	.048	.039	.019	.016	.013	
3.0	.165	.121	.085	.142	.104	.074	.097	.072	.052	.056	.042	.031	.018	.014	.010	
4.0	.158	.107	.068	.136	.093	.059	.093	.065	.042	.054	.038	.025	.017	.012	.008	
5.0	.151	.097	.056	.130	.084	.049	.090	.058	.035	.052	.034	.021	.017	.011	.007	
6.0	.145	.088	.048	.125	.077	.041	.086	.054	.029	.050	.032	.017	.016	.010	.006	
7.0	.139	.081	.041	.120	.071	.036	.083	.050	.025	.048	.029	.015	.016	.010	.005	
8.0	.133	.076	.036	.115	.066	.032	.079	.046	.022	.046	.027	.013	.015	.009	.004	
9.0	.128	.071	.033	.110	.062	.028	.076	.043	.020	.044	.026	.012	.014	.008	.004	
10.0	.122	.067	.030	.105	.058	.026	.073	.041	.018	.043	.024	.011	.014	.008	.004	

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:hgl
Test Date:2024-06-06

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.446
Humidity:65.0%
Test Distance:8.690m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

NAME: EPE-EM22-HO-AT-1H					TYPE: 9W					WEIGHT:				
SPEC.: 3000K					DIM.:					SERIAL No.: 1				
MFR.:					SUR.: 0.0756					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					20.1	21.5	20.3	21.7	21.9	19.3	20.7	19.6	20.9	21.2
3H					20.0	21.3	20.3	21.6	21.8	19.3	20.5	19.6	20.8	21.0
4H					19.9	21.1	20.2	21.4	21.7	19.2	20.4	19.5	20.6	20.9
6H					19.8	21.0	20.2	21.2	21.5	19.1	20.2	19.4	20.5	20.8
8H					19.8	20.9	20.1	21.2	21.5	19.0	20.1	19.4	20.4	20.7
12H					19.7	20.8	20.1	21.1	21.4	19.0	20.0	19.3	20.3	20.6
4H 2H					20.3	21.5	20.6	21.8	22.1	19.7	20.9	20.0	21.2	21.5
3H					20.3	21.3	20.7	21.6	22.0	19.7	20.7	20.0	21.0	21.3
4H					20.2	21.2	20.6	21.5	21.8	19.6	20.5	20.0	20.9	21.2
6H					20.1	20.9	20.5	21.3	21.7	19.5	20.3	19.9	20.7	21.1
8H					20.1	20.8	20.5	21.2	21.6	19.5	20.2	19.9	20.6	21.0
12H					20.0	20.7	20.5	21.1	21.5	19.4	20.1	19.9	20.5	20.9
8H 4H					20.1	20.8	20.5	21.2	21.6	19.5	20.2	19.9	20.6	21.0
6H					20.0	20.6	20.5	21.0	21.5	19.4	20.0	19.8	20.4	20.9
8H					20.0	20.5	20.4	20.9	21.4	19.4	19.9	19.8	20.3	20.8
12H					19.9	20.4	20.4	20.8	21.3	19.3	19.8	19.8	20.2	20.7
12H 4H					20.0	20.7	20.5	21.1	21.5	19.4	20.1	19.9	20.5	20.9
6H					20.0	20.5	20.4	20.9	21.4	19.4	19.9	19.8	20.3	20.8
8H					19.9	20.4	20.4	20.8	21.3	19.3	19.8	19.8	20.2	20.7
Variations with the observer position at spacings(CIE Pub.117):														
S = 1.0H					+ 0.3 / - 0.4					+ 0.5 / - 0.5				
1.5H					+ 1.6 / - 2.6					+ 1.1 / - 2.0				
2.0H					+ 0.8 / - 1.9					+ 1.3 / - 3.6				

CIE Pub.117, 1385 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 1.1)
Area: 0.0756 m2

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:hgl
Test Date:2024-06-06

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.446
Humidity:65.0%
Test Distance:8.690m [K=1.0000]
Remarks:

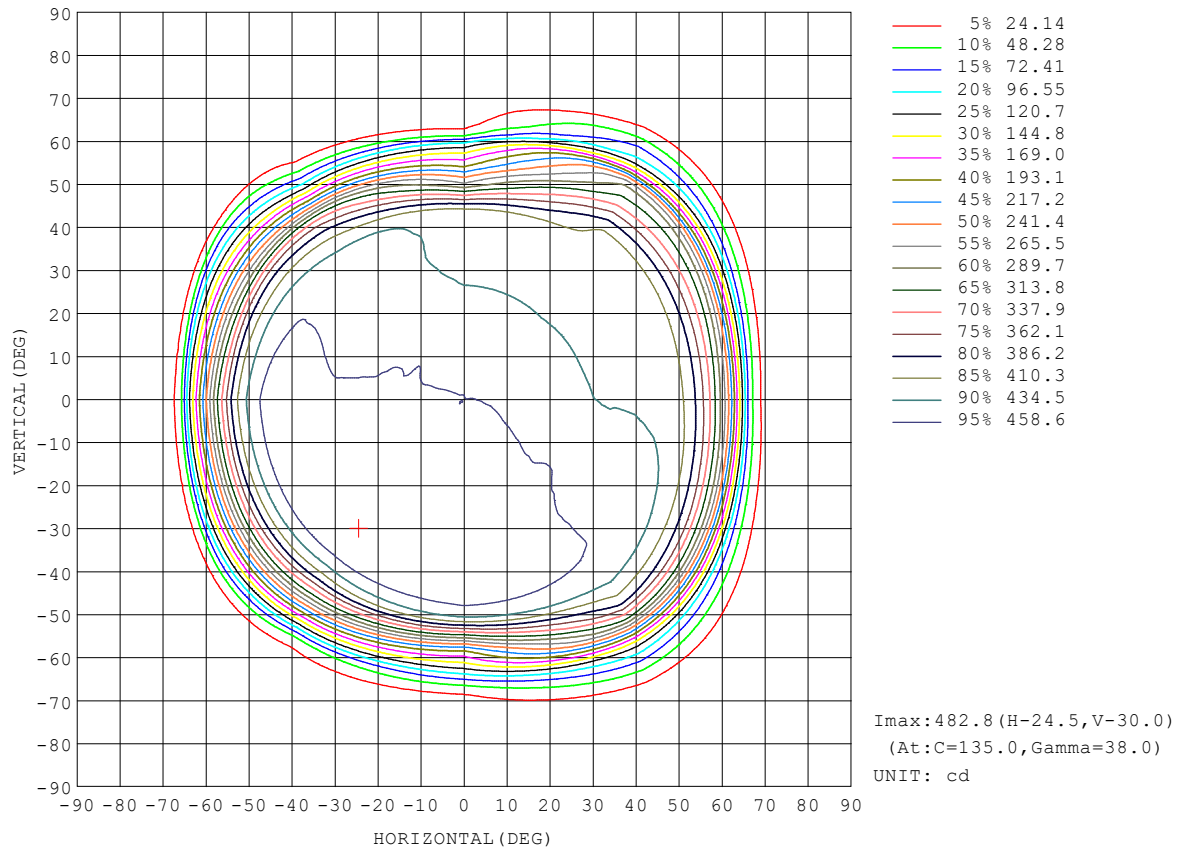
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γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.446
Humidity:65.0%
Test Distance:8.690m [K=1.0000]
Remarks:

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ISOCANDELA DIAGRAM

NAME: EPE-EM22-HO-AT-1H	TYPE: 9W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.0756	Shielding Angle:

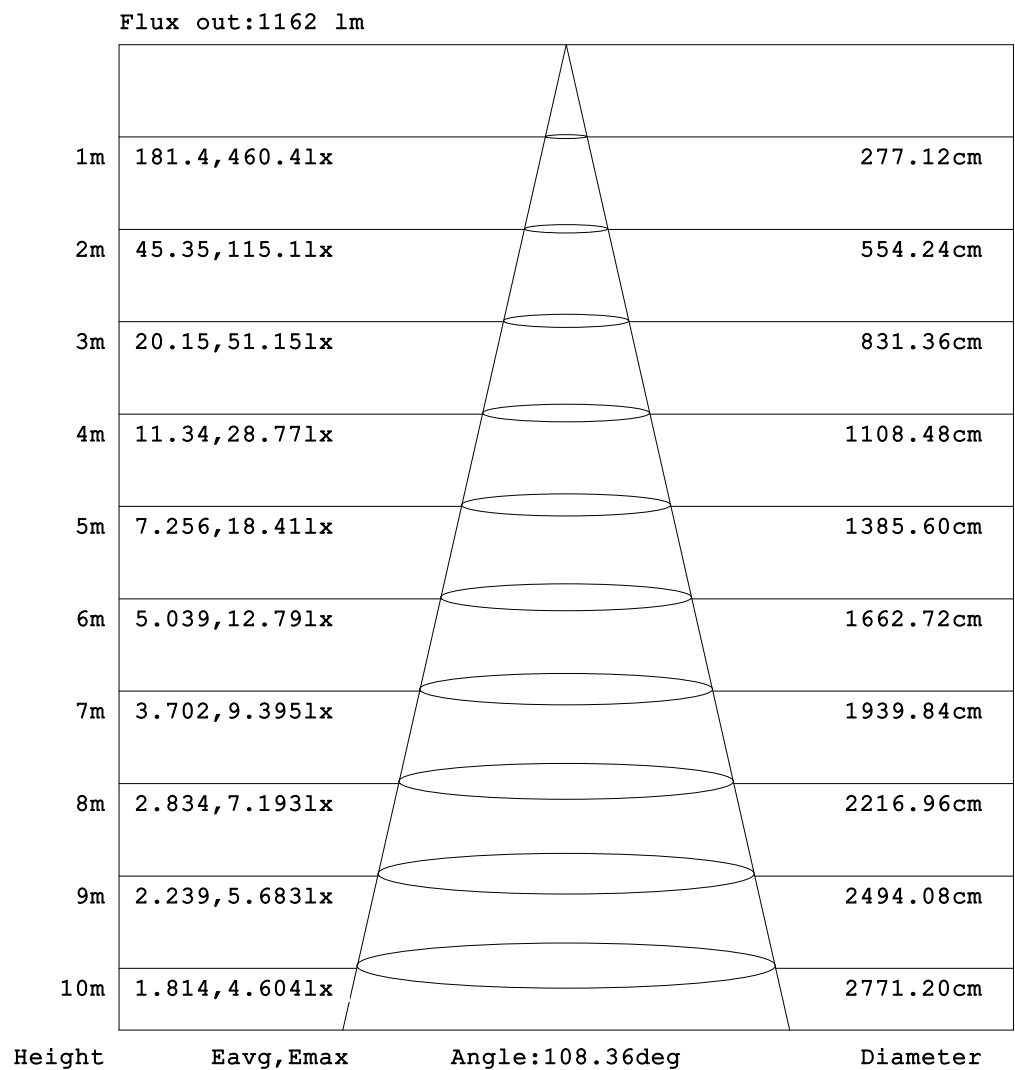


C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: MEDIUM
Temperature: 25.3DEG
Operators: hgl
Test Date: 2024-06-06

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.446
Humidity: 65.0%
Test Distance: 8.690m [K=1.0000]
Remarks:

AAI Figure

NAME: EPE-EM22-HO-AT-1H	TYPE: 9W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.0756	Shielding Angle:



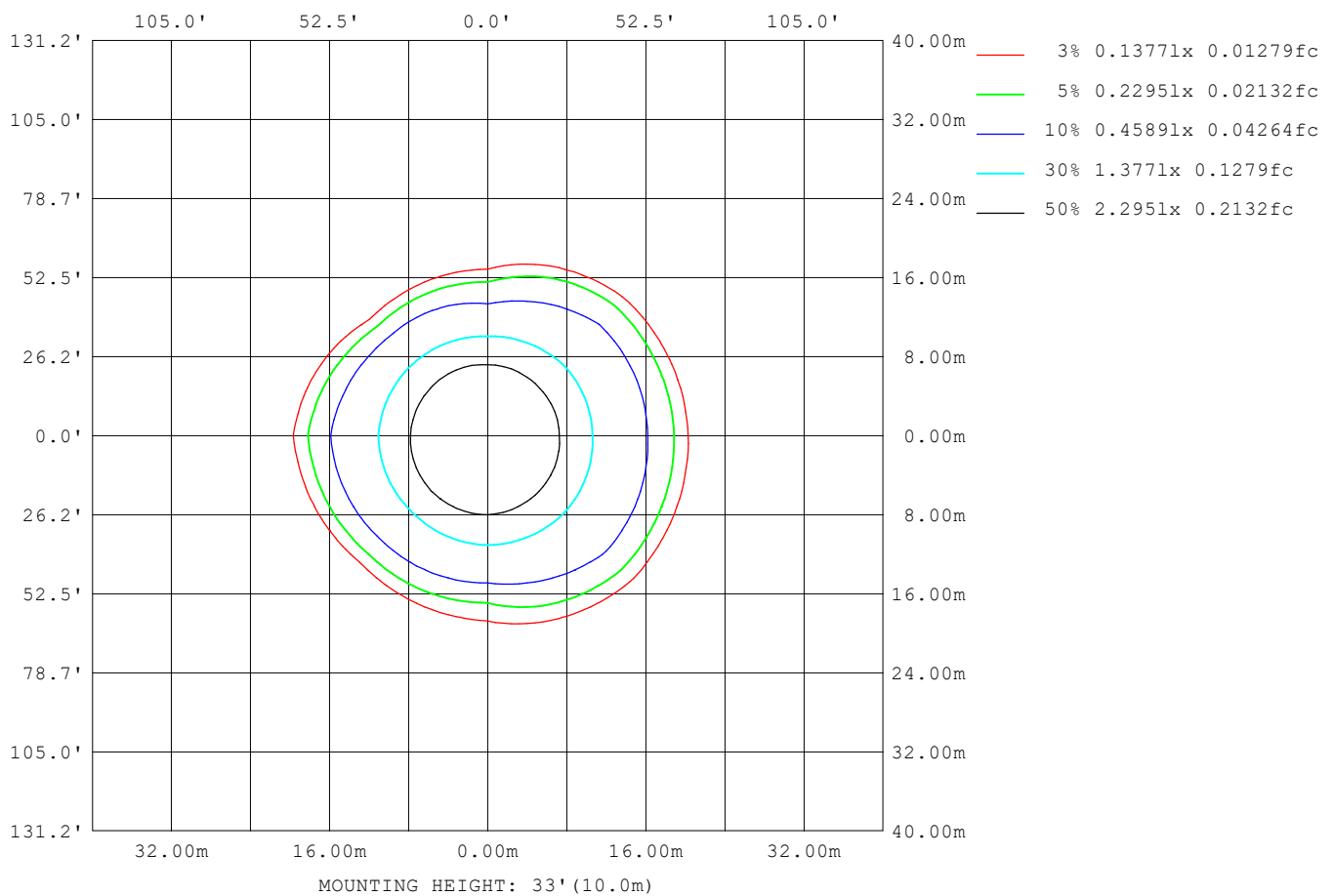
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: MEDIUM
 Temperature: 25.3DEG
 Operators: hgl
 Test Date: 2024-06-06

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.446
 Humidity: 65.0%
 Test Distance: 8.690m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

NAME: EPE-EM22-HO-AT-1H	TYPE: 9W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.0756	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:hgl
Test Date:2024-06-06

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.446
Humidity:65.0%
Test Distance:8.690m [K=1.0000]
Remarks:

LED Avg.L Report

NAME: EPE-EM22-HO-AT-1H	TYPE: 9W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.0756	Shielding Angle:

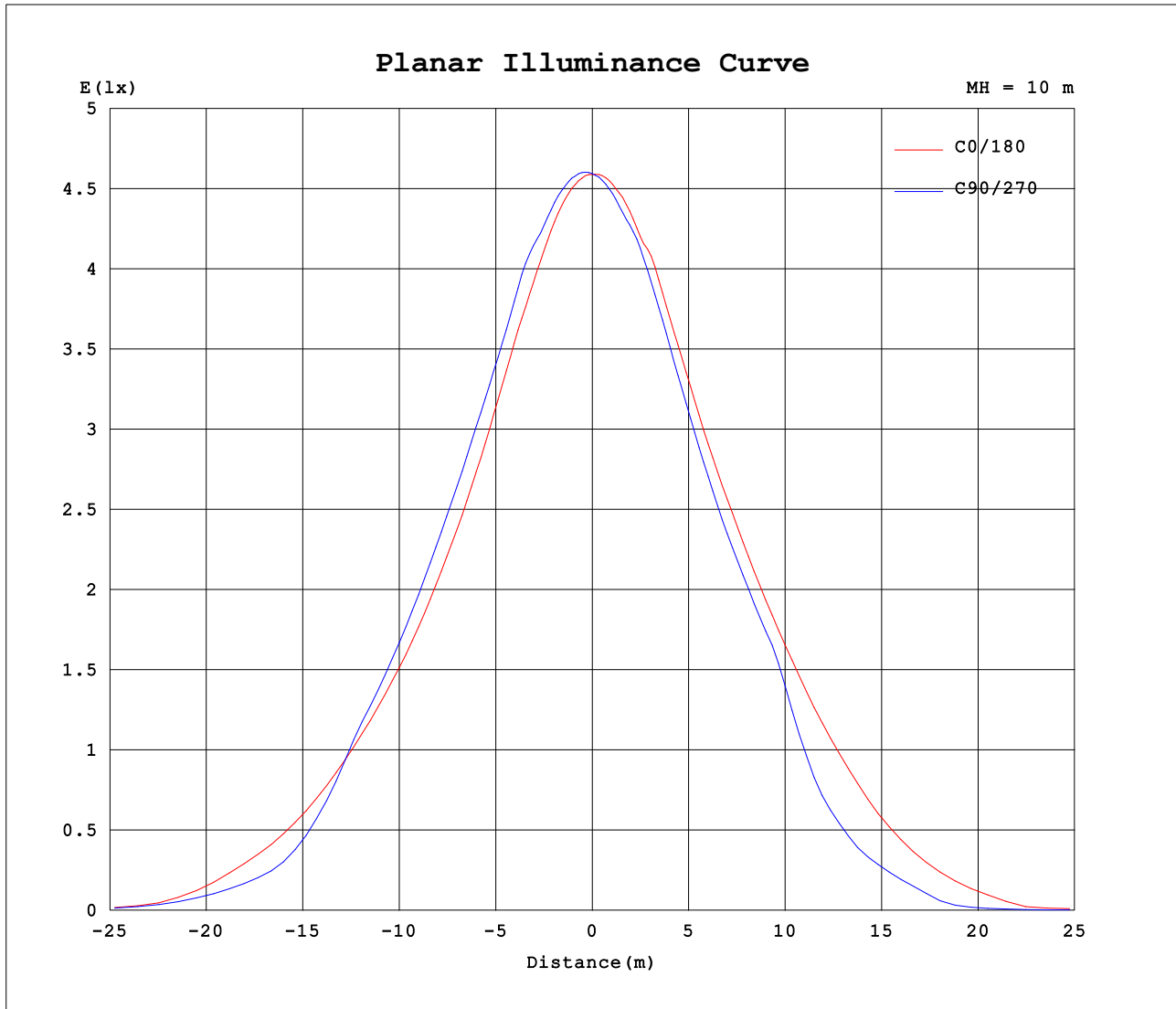
AvgL	cd/m2
L_0~180 (65) av	2906
L_0~180 (75) av	351
L_0~180 (85) av	111
L_90~270 (65) av	1356
L_90~270 (75) av	246
L_90~270 (85) av	177
L_45 (65) av	2176
L_45 (75) av	328
L_45 (85) av	139

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: MEDIUM
Temperature: 25.3DEG
Operators: hgl
Test Date: 2024-06-06

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.446
Humidity: 65.0%
Test Distance: 8.690m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: MEDIUM
 Temperature: 25.3DEG
 Operators: hgl
 Test Date: 2024-06-06

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.00.446
 Humidity: 65.0%
 Test Distance: 8.690m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: EPE-EM22-HO-AT-1H	TYPE: 9W	WEIGHT:
SPEC.: 3000K	DIM.:	SERIAL No.: 1
MFR.:	SUR.: 0.0756	Shielding Angle:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	45	90	135	180	225	270	315										
0	459	459	459	459	459	459	459	459										
5	458	460	463	462	460	457	455	455										
10	455	460	466	465	461	455	451	451										
15	449	460	468	471	461	455	450	447										
20	445	460	477	470	464	449	443	445										
25	440	462	475	473	462	447	436	437										
30	435	458	478	476	461	446	430	429										
35	433	457	481	483	467	447	427	426										
40	432	457	482	483	470	446	426	423										
45	428	456	472	465	468	428	396	419										
50	416	446	443	416	441	371	269	405										
55	371	413	303	314	368	226	177	338										
60	281	321	164	162	240	83.0	85.9	270										
65	111	138	73.7	29.6	75.0	15.9	13.0	94.5										
70	16.3	49.1	16.6	11.1	16.3	4.81	5.00	27.3										
75	6.48	12.9	7.96	4.36	7.28	1.30	1.67	7.09										
80	2.05	4.50	3.20	1.15	1.44	0.81	0.88	2.44										
85	1.19	1.54	1.54	0.52	0.27	0.61	0.78	1.00										
90	0.88	0.66	1.21	0.11	0.24	0.60	0.67	0.62										
95	0.69	0.40	0.46	0.18	0.40	0.62	0.69	0.54										
100	0.71	0.25	0.16	0.34	0.66	0.95	0.95	0.64										
105	0.79	0.34	0.19	0.58	0.97	1.14	1.24	0.87										
110	1.02	0.58	0.40	0.87	1.34	1.55	1.58	1.21										
115	1.32	0.88	0.69	1.18	1.73	1.93	1.95	1.59										
120	1.67	1.21	1.02	1.49	2.09	2.27	2.29	1.94										
125	1.98	1.54	1.37	1.76	2.42	2.59	2.60	2.32										
130	2.26	1.87	1.69	2.00	2.70	2.85	2.89	2.64										
135	2.51	2.16	1.96	2.25	2.95	3.10	3.13	2.92										
140	2.79	2.46	2.24	2.56	3.23	3.41	3.39	3.17										
145	3.15	2.76	2.55	2.91	3.53	3.71	3.67	3.47										
150	3.53	3.11	2.91	3.26	3.77	3.93	3.94	3.73										
155	3.85	3.50	3.29	3.56	3.94	4.05	4.14	4.00										
160	4.07	3.83	3.62	3.79	4.07	4.12	4.23	4.16										
165	4.21	4.06	3.88	3.98	4.16	4.19	4.27	4.23										
170	4.27	4.17	4.07	4.11	4.24	4.23	4.27	4.28										
175	4.32	4.26	4.18	4.22	4.30	4.27	4.28	4.29										
180	4.33	4.29	4.28	4.28	4.32	4.29	4.28	4.27										

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:hgl
Test Date:2024-06-06

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.446
Humidity:65.0%
Test Distance:8.690m [K=1.0000]
Remarks: