

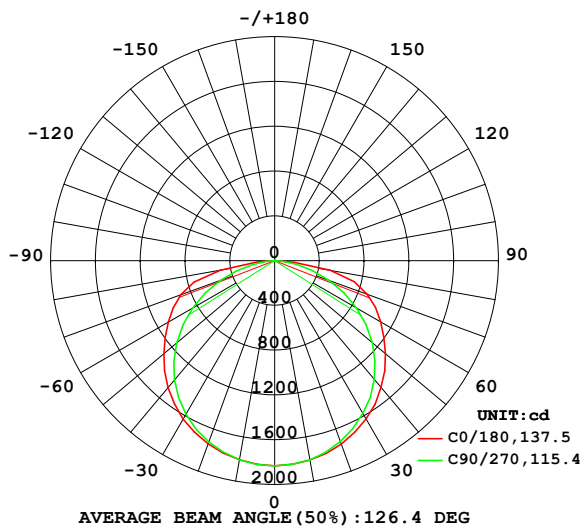
EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINAIRE PHOTOMETRIC TEST REPORT

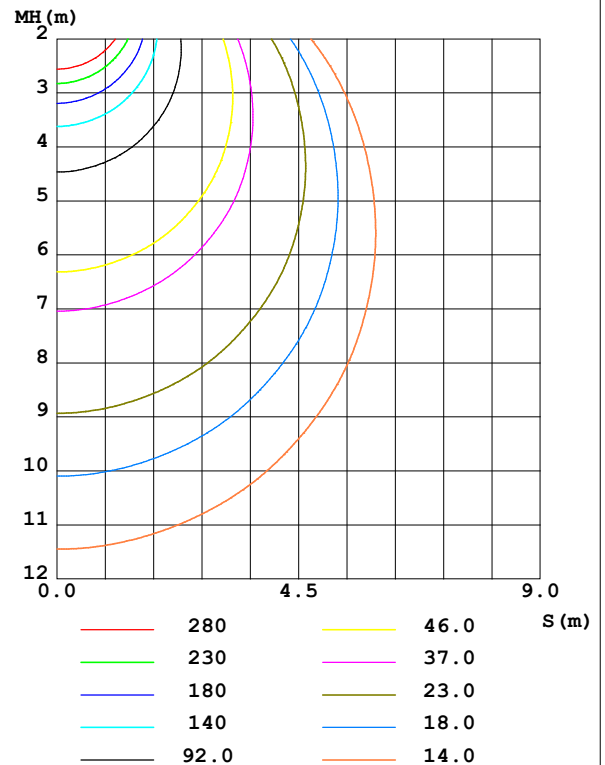
Test:U:276.90V I:0.1618A P:44.271W PF:0.9882 Freq:60.01Hz Lamp Flux:6028.09x1 lm		
NAME: ASD-LTR-24A 45 277V 45W 5000K		
MFR.: EVERFINE		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 136.16 lm/W			
MODEL		I _{max} (cd)	1833	S/MH(C0/180)	1.33
NOMINAL POWER(W)	45	LOR(%)	100.0	S/MH(C90/270)	1.29
RATED VOLTAGE(V)	277	TOTAL FLUX(lm)	6028.1	η UP,DN(C0-180)	0.0,49.9
NOMINAL FLUX(lm)	6028.09	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,50.1
LAMPS INSIDE	1	η up(%)	0.1	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	277	η down(%)	99.9	CIBSE SHR MAX	1.50

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.3°C
Operators: DAMIN
Test Date: 2024-04-09

γ Range: 0 - 180DEG
γ Interval: 5.0DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.464
Humidity: 65.0%
Test Distance: 26.000m [K=1.3000]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	1808	1803	1808	1806	1806	1806	1806	1809	0- 10	173.6	173.6	2.88,2.88
20	1744	1731	1720	1730	1742	1729	1723	1737	10- 20	501.5	675.1	11.2,11.2
30	1634	1606	1577	1606	1634	1604	1584	1614	20- 30	772.8	1448	24,24
40	1479	1432	1384	1430	1482	1430	1392	1442	30- 40	955.6	2404	39.9,39.9
50	1292	1214	1140	1212	1294	1214	1144	1228	40- 50	1027	3430	56.9,56.9
60	1095	970.4	843.7	968.5	1097	971.7	847.2	984.6	50- 60	981.2	4411	73.2,73.2
70	880.7	721.3	515.4	715.2	892.9	719.3	519.5	733.3	60- 70	835.9	5247	87,87
80	506.5	432.1	196.6	427.3	494.9	428.7	198.9	437.1	70- 80	591.4	5839	96.9,96.9
90	6.202	5.517	3.003	4.864	3.948	3.742	1.842	4.201	80- 90	185.6	6024	99.9,99.9
100	1.624	1.621	0.8930	1.377	0.0809	0.0015	0.1625	0.0826	90-100	2.241	6026	100,100
110	0.8917	0.7304	0.8123	0.8100	0	0	0.1625	0	100-110	0.5482	6027	100,100
120	0.8107	0.5674	0.6482	0.5663	0	0	0.1625	0	110-120	0.3777	6027	100,100
130	0.6485	0.4063	0.4874	0.4051	0	0	0.1625	0.2427	120-130	0.2709	6028	100,100
140	0.3243	0.2430	0.4062	0.1623	0	0	0.1625	0.1622	130-140	0.1874	6028	100,100
150	0.1621	0.1623	0.4062	0.1622	0	0	0.1625	0.4054	140-150	0.1115	6028	100,100
160	0.1621	0.1623	0.4062	0.1622	0	0.0809	0.1625	0.4054	150-160	0.0855	6028	100,100
170	0.1621	0.1623	0.4062	0.1622	0	0.1623	0.1625	0.4054	160-170	0.0567	6028	100,100
180	0.1621	0.1623	0.4062	0.1622	0	0.1623	0.1625	0.4054	170-180	0.0194	6028	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

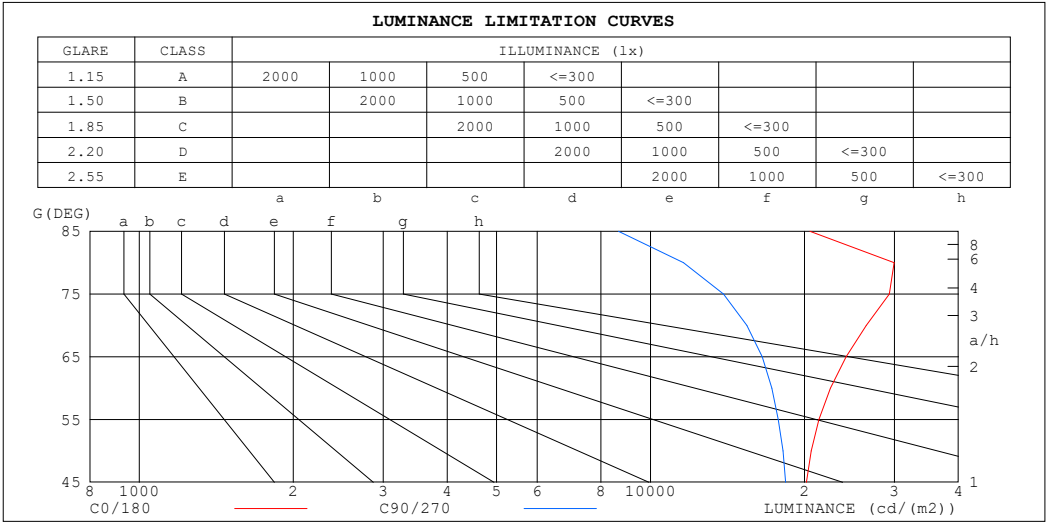
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:DAMIN
Test Date:2024-04-09

γ Range: 0 - 180DEG
 γ Interval: 5.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.464
Humidity:65.0%
Test Distance:26.000m [K=1.3000]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINANCE LIMITATION CURVES

Test:U:276.90V I:0.1618A P:44.271W PF:0.9882 Freq:60.01Hz		
Lamp Flux:6028.09x1 lm		
NAME: ASD-LTR-24A 45 277V 45W 5000K		
MFR.: EVERFINE		



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	20502	8652
80	29942	11592
75	29296	13890
70	26432	15431
65	24121	16531
60	22476	17279
55	21348	17781
50	20626	18156
45	20180	18365

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:DAMIN
Test Date:2024-04-09

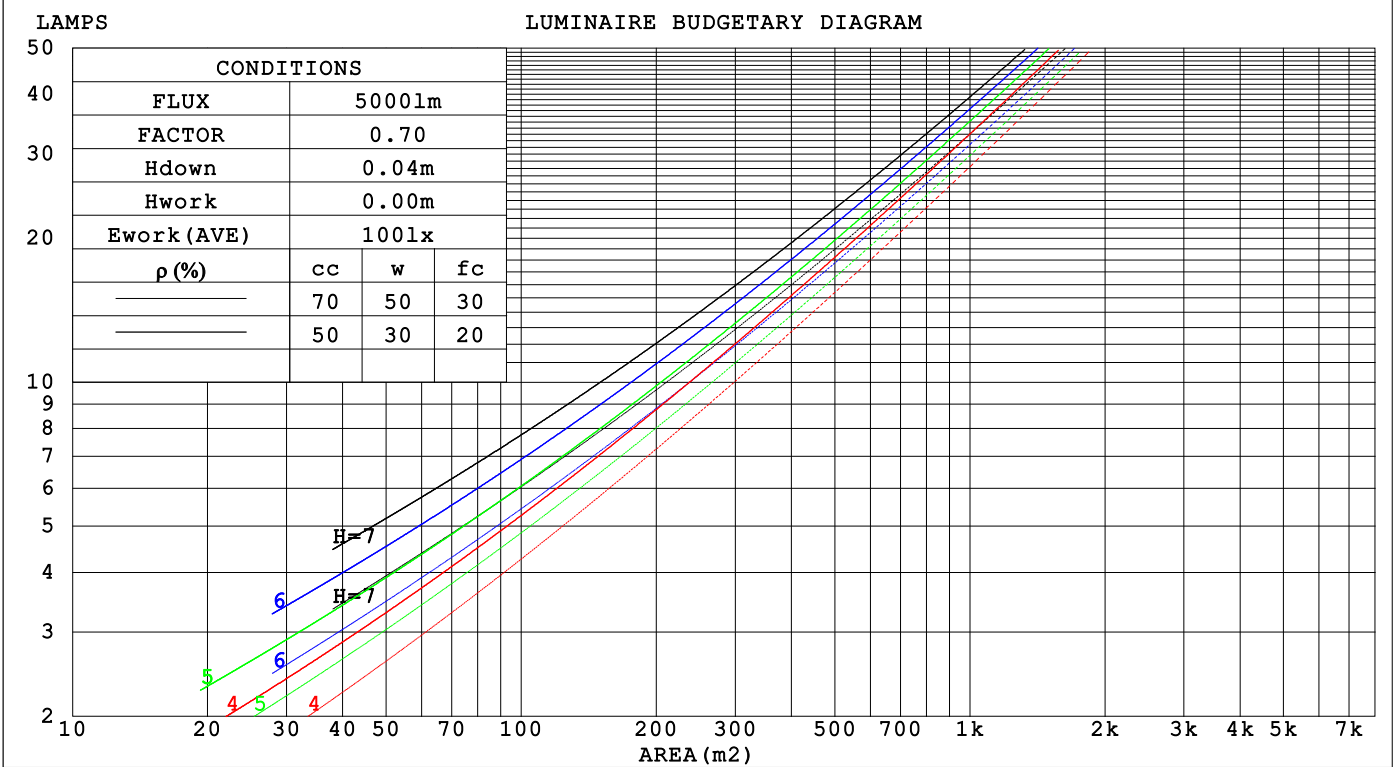
γ Range: 0 - 180DEG
γ Interval: 5.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.464
Humidity:65.0%
Test Distance:26.000m [K=1.3000]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:276.90V I:0.1618A P:44.271W PF:0.9882 Freq:60.01Hz		
Lamp Flux:6028.09x1 lm		
NAME: ASD-LTR-24A 45 277V 45W 5000K		
MFR.: EVERFINE		

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	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	.00														
1.0	1.02	.97	.93	.00	.96	.92	.96	.92	.89	.92	.89	.86	.88	.86	.83	.81														
2.0	.88	.81	.74	.86	.79	.73	.82	.77	.72	.79	.74	.70	.76	.72	.68	.66														
3.0	.77	.68	.61	.75	.67	.60	.72	.65	.59	.69	.63	.58	.66	.61	.57	.55														
4.0	.67	.58	.51	.66	.57	.51	.63	.56	.50	.61	.54	.49	.59	.53	.48	.46														
5.0	.60	.50	.44	.59	.50	.43	.57	.49	.43	.55	.48	.42	.53	.47	.42	.40														
6.0	.54	.44	.38	.53	.44	.38	.51	.43	.37	.49	.42	.37	.48	.41	.36	.34														
7.0	.49	.40	.33	.48	.39	.33	.46	.38	.33	.45	.38	.32	.43	.37	.32	.30														
8.0	.44	.35	.29	.44	.35	.29	.42	.35	.29	.41	.34	.29	.40	.33	.29	.27														
9.0	.41	.32	.26	.40	.32	.26	.39	.31	.26	.38	.31	.26	.37	.30	.26	.24														
10.0	.37	.29	.24	.37	.29	.24	.36	.29	.24	.35	.28	.24	.34	.28	.23	.22														



C Range: 0 - 360DEG

C Interval: 45.0DEG

Test Speed: HIGH

Temperature:25.3℃

Operators:DAMIN

Test Date:2024-04-09

γ Range: 0 - 180DEG

γ Interval: 5.0DEG

Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.464

Humidity:65.0%

Test Distance:26.000m [K=1.3000]

Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

WEC AND CCEC

Test:U:276.90V I:0.1618A P:44.271W PF:0.9882 Freq:60.01Hz		
Lamp Flux:6028.09x1 lm		
NAME: ASD-LTR-24A 45 277V 45W 5000K		
MFR.: EVERFINE		

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	.342	.194	.062	.334	.191	.061	.321	.184	.059	.309	.178	.057	.297	.172	.056		
2.0	.315	.173	.053	.309	.170	.052	.297	.165	.051	.286	.160	.050	.275	.156	.049		
3.0	.288	.153	.046	.282	.151	.045	.271	.147	.045	.262	.143	.044	.252	.140	.043		
4.0	.263	.137	.040	.258	.135	.040	.248	.132	.039	.240	.129	.039	.231	.126	.038		
5.0	.241	.123	.036	.237	.121	.035	.228	.119	.035	.220	.116	.035	.213	.114	.034		
6.0	.222	.111	.032	.218	.110	.032	.211	.108	.031	.204	.106	.031	.197	.104	.031		
7.0	.206	.102	.029	.202	.101	.029	.196	.099	.028	.189	.097	.028	.184	.095	.028		
8.0	.191	.094	.026	.188	.093	.026	.182	.091	.026	.177	.090	.026	.172	.088	.026		
9.0	.179	.087	.024	.176	.086	.024	.171	.084	.024	.166	.083	.024	.161	.082	.024		
10.0	.168	.080	.022	.165	.080	.022	.160	.079	.022	.156	.077	.022	.152	.076	.022		

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	.191	.191	.191	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020		
1.0	.183	.156	.132	.157	.134	.114	.107	.092	.079	.062	.053	.046	.020	.017	.015		
2.0	.176	.132	.096	.151	.114	.083	.103	.079	.058	.060	.046	.034	.019	.015	.011		
3.0	.168	.115	.072	.144	.099	.063	.099	.069	.044	.057	.040	.026	.018	.013	.008		
4.0	.161	.102	.057	.138	.088	.049	.095	.061	.035	.055	.036	.021	.018	.012	.007		
5.0	.153	.092	.046	.131	.079	.040	.091	.055	.028	.052	.032	.017	.017	.011	.006		
6.0	.146	.083	.038	.125	.072	.033	.086	.050	.024	.050	.030	.014	.016	.010	.005		
7.0	.139	.076	.033	.119	.066	.029	.082	.046	.020	.048	.027	.012	.015	.009	.004		
8.0	.132	.071	.028	.114	.061	.025	.079	.043	.018	.046	.025	.010	.015	.008	.003		
9.0	.126	.066	.025	.108	.057	.022	.075	.040	.016	.044	.024	.009	.014	.008	.003		
10.0	.120	.061	.022	.103	.053	.020	.072	.037	.014	.042	.022	.008	.014	.007	.003		

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:DAMIN
Test Date:2024-04-09

γ Range: 0 - 180DEG
γ Interval: 5.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.464
Humidity:65.0%
Test Distance:26.000m [K=1.3000]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

UTILIZATION FACTORS TABLE

Test:U:276.90V I:0.1618A P:44.271W PF:0.9882 Freq:60.01Hz Lamp Flux:6028.09x1 lm		
NAME: ASD-LTR-24A 45 277V 45W 5000K		
MFR.: EVERFINE		

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) $k(RI) \times RCR = 5$									
$k = 0.60$	55	43	36	54	43	36	53	42	35	29
0.80	65	53	45	64	52	45	62	51	44	37
1.00	73	61	54	72	61	53	70	62	53	45
1.25	80	69	61	79	68	61	76	67	60	52
1.50	85	75	67	84	74	67	81	72	66	58
2.00	93	83	76	91	82	75	87	80	74	66
2.50	97	88	82	95	87	81	91	84	79	70
3.00	100	93	87	98	91	86	94	88	84	75
4.00	105	98	93	102	97	92	98	93	89	80
5.00	107	102	98	105	100	96	100	96	93	83
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

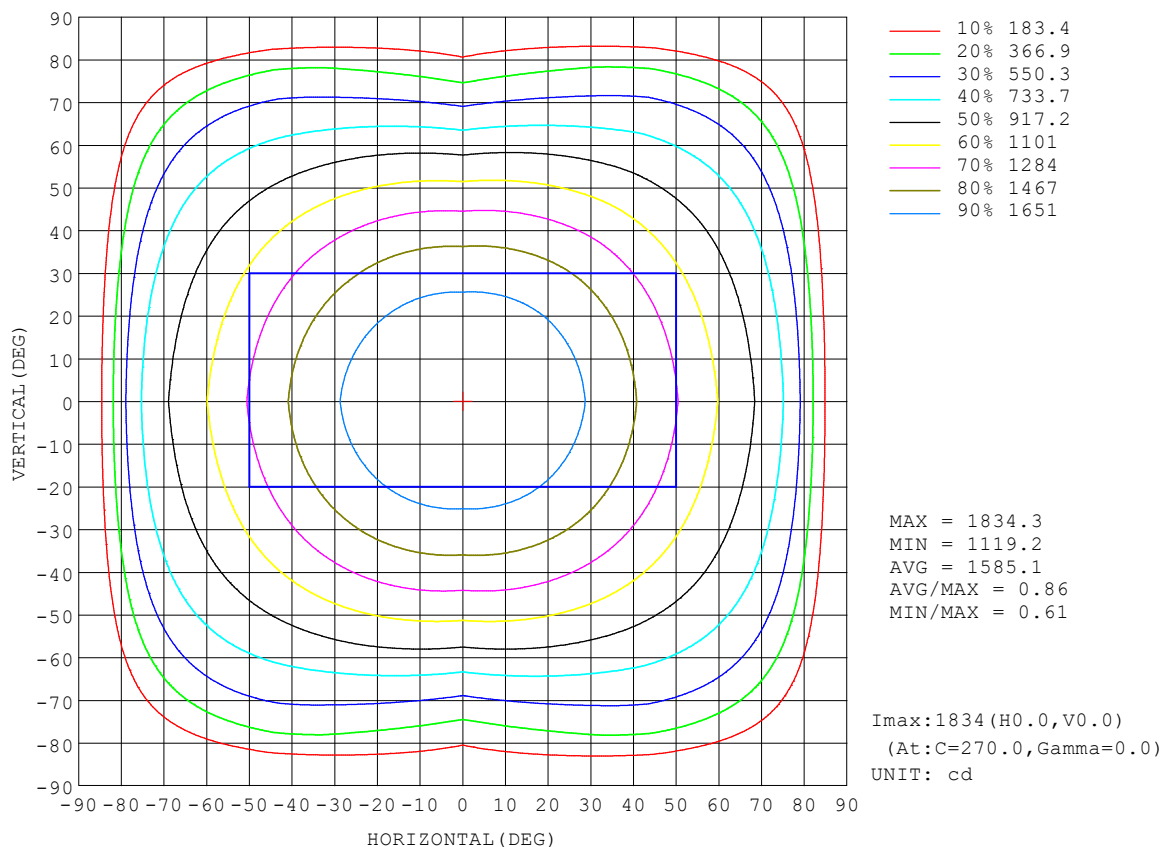
C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 25.3°C
 Operators: DAMIN
 Test Date: 2024-04-09

γ Range: 0 - 180DEG
 γ Interval: 5.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.464
 Humidity: 65.0%
 Test Distance: 26.000m [K=1.3000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM

Test:U:276.90V I:0.1618A P:44.271W PF:0.9882 Freq:60.01Hz Lamp Flux:6028.09x1 lm		
NAME: ASD-LTR-24A 45 277V 45W 5000K		
MFR.: EVERFINE		



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:DAMIN
Test Date:2024-04-09

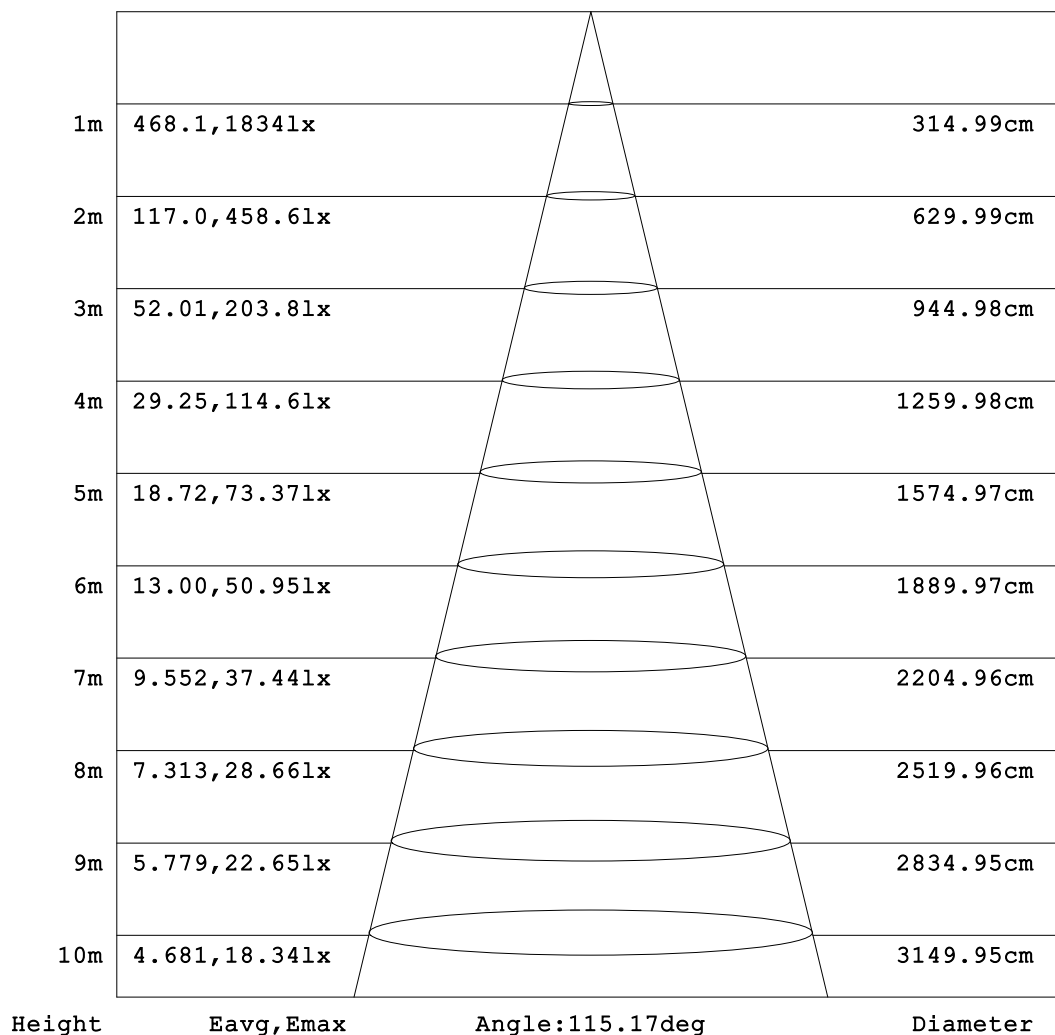
γ Range: 0 - 180DEG
γ Interval: 5.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.464
Humidity:65.0%
Test Distance:26.000m [K=1.3000]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

AAI Figure

Test:U:276.90V I:0.1618A P:44.271W PF:0.9882 Freq:60.01Hz Lamp Flux:6028.09x1 lm		
NAME: ASD-LTR-24A 45 277V 45W 5000K		
MFR.: EVERFINE		

Flux out:4411 lm



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

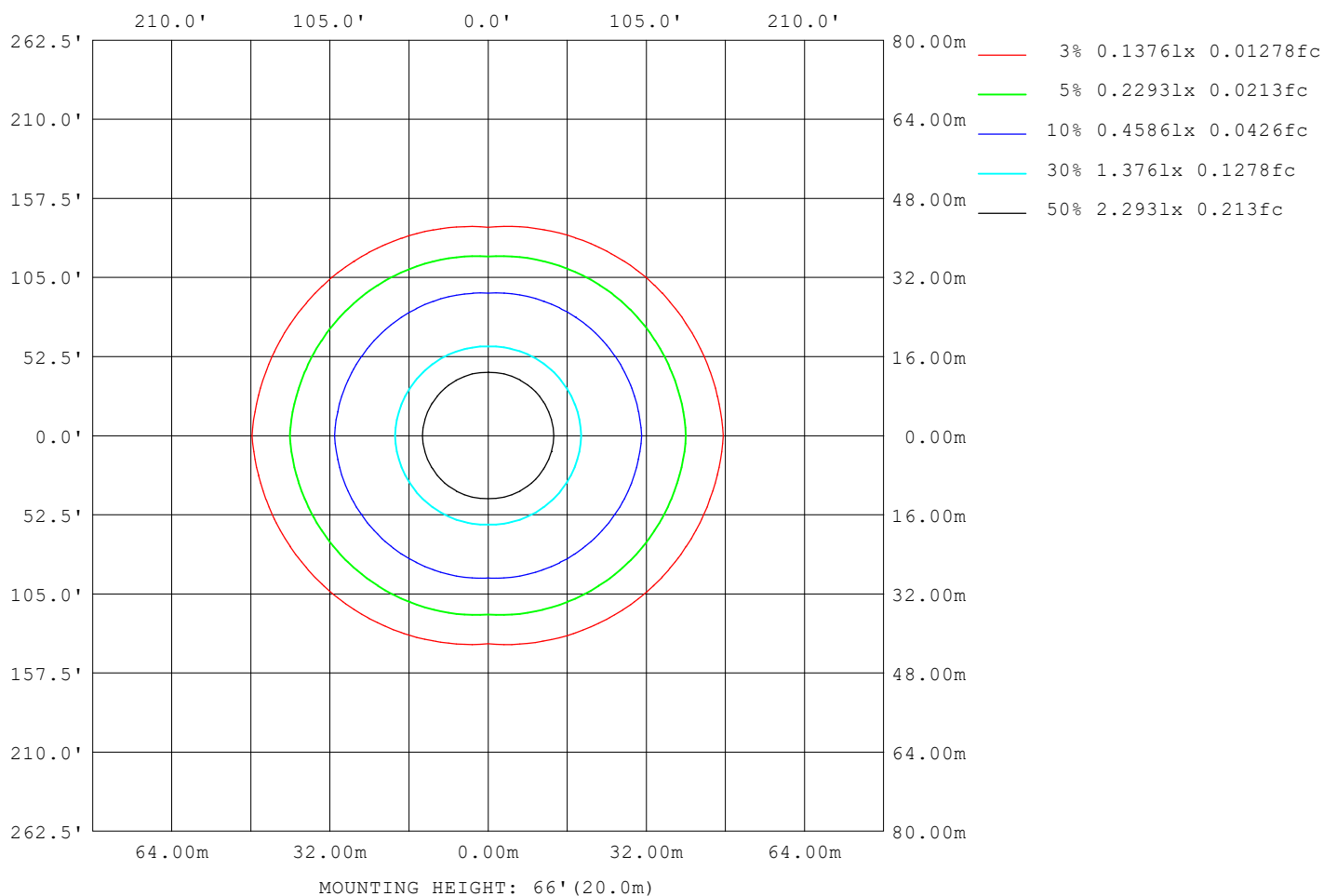
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:DAMIN
Test Date:2024-04-09

γ Range: 0 - 180DEG
γ Interval: 5.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.464
Humidity:65.0%
Test Distance:26.000m [K=1.3000]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOLUX DIAGRAM

Test:U:276.90V I:0.1618A P:44.271W PF:0.9882 Freq:60.01Hz		
Lamp Flux:6028.09x1 lm		
NAME: ASD-LTR-24A 45 277V 45W 5000K		
MFR.: EVERFINE		



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3°C
Operators:DAMIN
Test Date:2024-04-09

γ Range: 0 - 180DEG
γ Interval: 5.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.464
Humidity:65.0%
Test Distance:26.000m [K=1.3000]
Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LED Avg.L Report

Test:U:276.90V I:0.1618A P:44.271W PF:0.9882 Freq:60.01Hz		
Lamp Flux:6028.09x1 lm		
NAME: ASD-LTR-24A 45 277V 45W 5000K		
MFR.: EVERFINE		

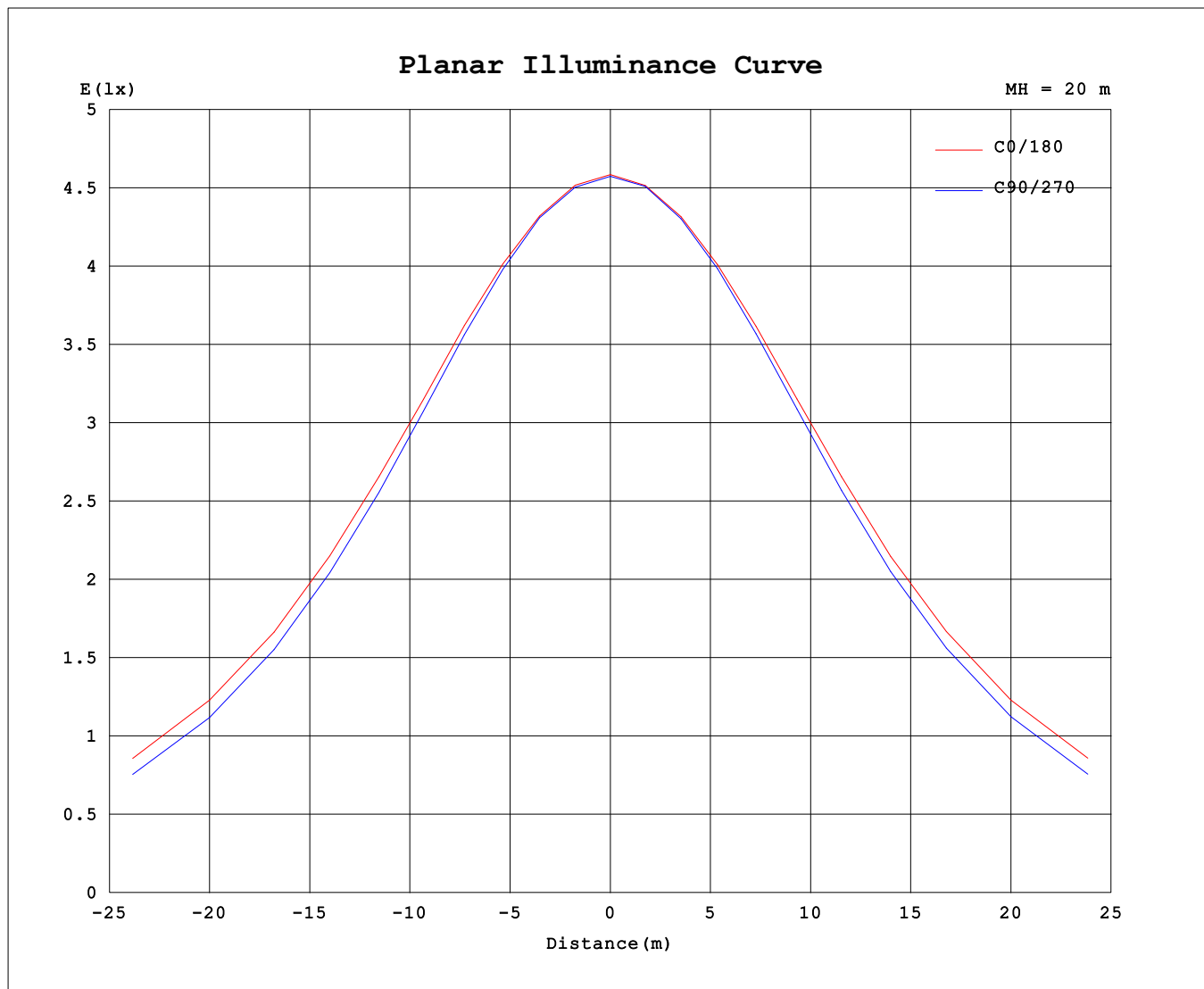
AvgL	cd/m2
L_0~180 (65) av	24203
L_0~180 (75) av	29456
L_0~180 (85) av	19375
L_90~270 (65) av	16596
L_90~270 (75) av	13960
L_90~270 (85) av	8685
L_45 (65) av	20580
L_45 (75) av	23341
L_45 (85) av	19767

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:DAMIN
Test Date:2024-04-09

γ Range: 0 - 180DEG
γ Interval: 5.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.464
Humidity:65.0%
Test Distance:26.000m [K=1.3000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 25.3°C
 Operators: DAMIN
 Test Date: 2024-04-09

γ Range: 0 - 180DEG
 γ Interval: 5.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.464
 Humidity: 65.0%
 Test Distance: 26.000m [K=1.3000]
 Remarks:

EVERFINE GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:276.90V I:0.1618A P:44.271W PF:0.9882 Freq:60.01Hz																	
Lamp Flux:6028.09x1 lm																	
NAME: ASD-LTR-24A 45 277V 45W 5000K																	
MFR.: EVERFINE																	

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	45	90	135	180	225	270	315									
0	1833	1833	1833	1833	1833	1833	1833	1833									
5	1826	1820	1825	1825	1826	1825	1827	1829									
10	1808	1803	1808	1806	1806	1806	1806	1809									
15	1781	1778	1769	1773	1778	1772	1771	1778									
20	1744	1731	1720	1730	1742	1729	1723	1737									
25	1692	1674	1656	1673	1693	1674	1662	1680									
30	1634	1606	1577	1606	1634	1604	1584	1614									
35	1565	1526	1490	1523	1562	1522	1495	1534									
40	1479	1432	1384	1430	1482	1430	1392	1442									
45	1390	1326	1268	1327	1391	1326	1274	1338									
50	1292	1214	1140	1212	1294	1214	1144	1228									
55	1193	1093	996	1093	1196	1095	999	1107									
60	1095	970	844	968	1097	972	847	985									
65	993	848	682	839	1002	846	686	860									
70	881	721	515	715	893	719	519	733									
75	739	588	351	584	748	586	354	597									
80	507	432	197	427	495	429	199	437									
85	174	173	73.6	159	155	163	74.0	177									
90	6.20	5.52	3.00	4.86	3.95	3.74	1.84	4.20									
95	3.08	2.84	1.54	2.43	1.13	0.90	0.25	1.06									
100	1.62	1.62	0.89	1.38	0.08	0.00	0.16	0.08									
105	0.97	0.89	0.81	0.81	0.00	0.00	0.16	0.00									
110	0.89	0.73	0.81	0.81	0.00	0.00	0.16	0.00									
115	0.81	0.65	0.73	0.65	0.00	0.00	0.16	0.00									
120	0.81	0.57	0.65	0.57	0.00	0.00	0.16	0.00									
125	0.65	0.57	0.49	0.41	0.00	0.00	0.16	0.00									
130	0.65	0.41	0.49	0.41	0.00	0.00	0.16	0.24									
135	0.57	0.32	0.49	0.24	0.00	0.00	0.16	0.16									
140	0.32	0.24	0.41	0.16	0.00	0.00	0.16	0.16									
145	0.16	0.16	0.41	0.16	0.00	0.00	0.16	0.32									
150	0.16	0.16	0.41	0.16	0.00	0.00	0.16	0.41									
155	0.16	0.16	0.41	0.16	0.00	0.00	0.16	0.41									
160	0.16	0.16	0.41	0.16	0.00	0.08	0.16	0.41									
165	0.16	0.16	0.41	0.16	0.00	0.16	0.16	0.41									
170	0.16	0.16	0.41	0.16	0.00	0.16	0.16	0.41									
175	0.16	0.16	0.41	0.16	0.00	0.16	0.16	0.41									
180	0.16	0.16	0.41	0.16	0.00	0.16	0.16	0.41									

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3℃
Operators:DAMIN
Test Date:2024-04-09

γ Range: 0 - 180DEG
γ Interval: 5.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.00.464
Humidity:65.0%
Test Distance:26.000m [K=1.3000]
Remarks: