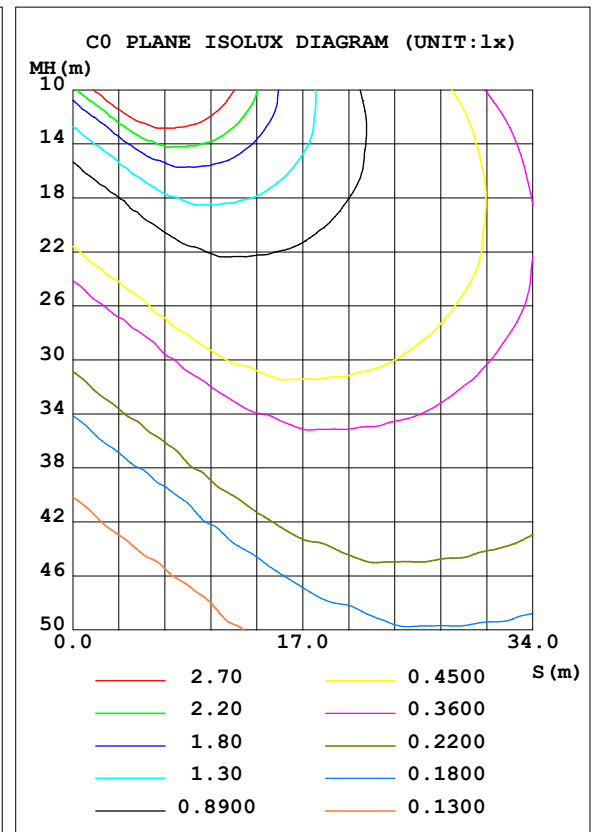
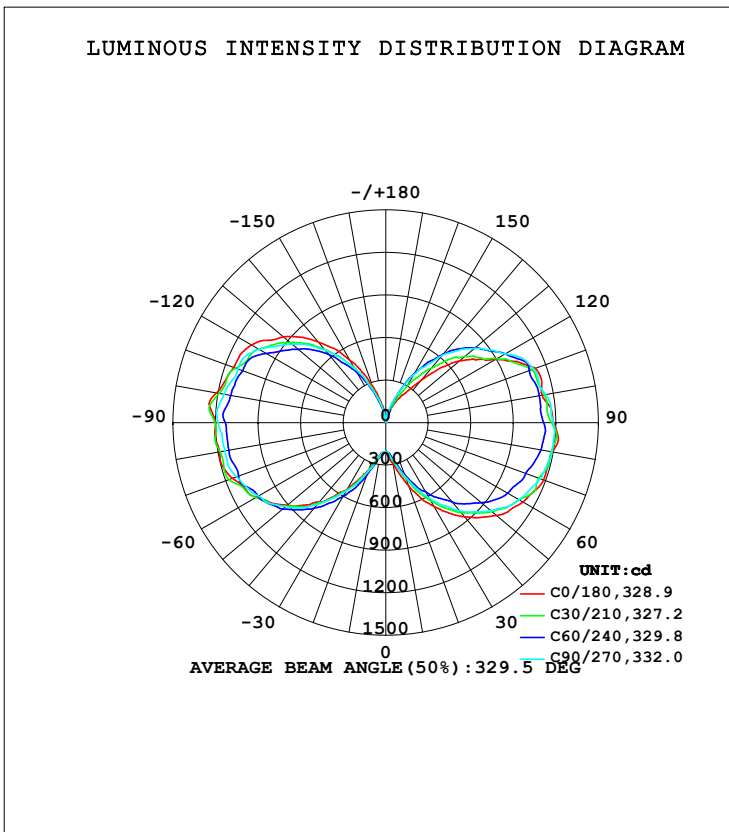


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.1V I:0.8382A P:99.43W PF:0.9878 Freq:49.99Hz Lamp Flux:11216.7x1 lm		
NAME: T20-100W-02	TYPE:	WEIGHT:
SPEC.:5000K	DIM.:	SERIAL No.:
MFR.:	SUR.:60cm*60cm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 112.80 lm/W			
MODEL	T20-100W-02	I <sub>max</sub> (cd)	1252	S/MH (C0/180)	3.68
NOMINAL POWER (W)	100	LOR (%)	100.0	S/MH (C90/270)	3.68
RATED VOLTAGE (V)	100-277	TOTAL FLUX (lm)	11217	η UP, DN (C0-180)	23.1, 26.6
NOMINAL FLUX (lm)	11216.7	CIE CLASS	DIFFUSE	η UP, DN (C180-360)	24.3, 26.0
LAMPS INSIDE	1	η up (%)	47.4	CIBSE SHR NOM	2.00
TEST VOLTAGE (V)	120	η down (%)	52.6	CIBSE SHR MAX	2.00



C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DAMIN  
 Test Date: 2020-10-13

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.361  
 Humidity: 65.0%  
 Test Distance: 8.800m [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	293.8	258.9	263.1	259.5	229.2	243.2	239.5	247.4	0- 10	22.12	22.12	0.20,0.20
20	477.4	405.0	407.6	387.1	353.3	377.7	368.1	389.9	10- 20	91.47	113.6	1.01,1.01
30	684.6	602.3	613.1	586.4	539.8	573.8	555.0	573.0	20- 30	230.6	344.2	3.07,3.07
40	867.0	780.7	810.0	769.3	730.7	763.6	755.0	761.5	30- 40	431.5	775.7	6.92,6.92
50	1020	928.4	966.3	922.3	905.4	933.1	922.1	915.3	40- 50	666.1	1442	12.9,12.9
60	1119	1041	1086	1049	1055	1048	1037	1016	50- 60	895.7	2337	20.8,20.8
70	1184	1099	1159	1118	1152	1141	1121	1102	60- 70	1084	3422	30.5,30.5
80	1194	1148	1190	1144	1191	1155	1152	1116	70- 80	1212	4634	41.3,41.3
90	1182	1141	1181	1151	1200	1168	1183	1141	80- 90	1268	5902	52.6,52.6
100	1119	1117	1144	1130	1213	1153	1159	1111	90-100	1265	7167	63.9,63.9
110	1123	1087	1111	1061	1141	1101	1109	1052	100-110	1177	8344	74.4,74.4
120	893.9	937.6	971.2	980.7	1094	1006	1037	953.3	110-120	1039	9384	83.7,83.7
130	679.7	777.2	815.2	803.7	940.8	843.3	861.6	789.5	120-130	801.3	10185	90.8,90.8
140	389.3	567.4	620.5	616.5	743.6	653.4	668.6	594.3	130-140	555.9	10741	95.8,95.8
150	215.4	340.9	386.4	402.2	510.3	433.9	437.7	350.0	140-150	312.1	11053	98.5,98.5
160	87.94	131.8	167.8	188.7	275.7	210.3	216.8	126.8	150-160	129.3	11182	99.7,99.7
170	15.54	37.28	47.65	65.13	103.7	67.47	64.50	30.61	160-170	31.48	11214	100,100
180	8.844	7.811	7.484	7.539	9.013	7.793	7.400	7.549	170-180	3.062	11217	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 1079.3 lm

%lum = 9.6%

%lamp = 9.6%

Conical surface Flux(120deg): 2337.4 lm

%lum = 20.8%

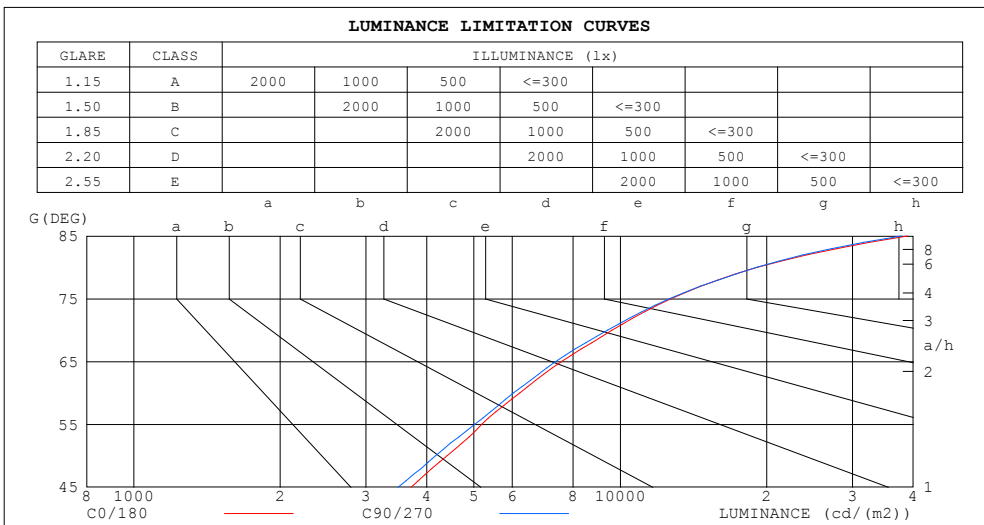
%lamp = 20.8%

C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2020-10-13

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.361  
 Humidity:65.0%  
 Test Distance:8.800m [K=1.0000]  
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:120.1V I:0.8382A P:99.43W PF:0.9878 Freq:49.99Hz Lamp Flux:11216.7x1 lm		
NAME: T20-100W-02	TYPE:	WEIGHT:
SPEC.:5000K	DIM.:	SERIAL No.:
MFR.:	SUR.:60cm*60cm	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	38925	37925
80	19105	19043
75	12709	12612
70	9619	9413
65	7569	7365
60	6217	6031
55	5192	5020
50	4406	4176
45	3713	3494

C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2020-10-13

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.361  
 Humidity:65.0%  
 Test Distance:8.800m [K=1.0000]  
 Remarks:

WEC AND CCEC

Test:U:120.1V I:0.8382A P:99.43W PF:0.9878 Freq:49.99Hz Lamp Flux:11216.7x1 lm		
NAME: T20-100W-02	TYPE:	WEIGHT:
SPEC.:5000K	DIM.:	SERIAL No.:
MFR.:	SUR.:60cm*60cm	Shielding 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	.440	.250	.079	.419	.239	.076	.378	.217	.069	.341	.196	.063	.306	.177	.057	
2.0	.363	.199	.061	.343	.189	.058	.306	.170	.053	.272	.152	.048	.240	.136	.043	
3.0	.314	.167	.050	.296	.158	.048	.262	.142	.043	.230	.126	.039	.201	.111	.034	
4.0	.278	.144	.042	.261	.137	.040	.230	.122	.036	.201	.108	.033	.174	.095	.029	
5.0	.249	.127	.037	.234	.120	.035	.205	.107	.031	.179	.094	.028	.154	.082	.025	
6.0	.226	.113	.032	.212	.107	.031	.186	.095	.028	.161	.084	.025	.138	.073	.022	
7.0	.207	.102	.029	.194	.097	.028	.170	.086	.025	.147	.075	.022	.125	.065	.019	
8.0	.191	.093	.026	.179	.088	.025	.156	.078	.022	.135	.068	.020	.115	.059	.017	
9.0	.177	.086	.024	.166	.081	.023	.145	.072	.020	.125	.063	.018	.106	.054	.016	
10.0	.165	.079	.022	.155	.075	.021	.135	.066	.019	.116	.058	.016	.099	.050	.014	

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	.551	.551	.551	.471	.471	.471	.322	.322	.322	.185	.185	.185	.059	.059	.059	
1.0	.553	.519	.488	.473	.445	.420	.324	.306	.290	.186	.177	.169	.060	.057	.055	
2.0	.548	.498	.456	.469	.429	.394	.322	.297	.275	.186	.173	.161	.060	.056	.052	
3.0	.541	.483	.436	.464	.417	.378	.319	.289	.265	.184	.169	.156	.059	.055	.051	
4.0	.534	.472	.424	.458	.408	.368	.315	.284	.259	.182	.166	.153	.059	.054	.050	
5.0	.526	.463	.416	.452	.400	.362	.311	.280	.255	.180	.164	.151	.058	.054	.050	
6.0	.519	.455	.410	.446	.394	.357	.308	.276	.252	.179	.162	.150	.058	.053	.050	
7.0	.512	.449	.405	.440	.389	.353	.304	.273	.250	.177	.161	.149	.057	.053	.049	
8.0	.505	.444	.402	.435	.385	.351	.301	.270	.249	.175	.160	.148	.057	.052	.049	
9.0	.499	.440	.400	.430	.382	.349	.298	.268	.247	.173	.158	.148	.056	.052	.049	
10.0	.493	.436	.397	.425	.378	.347	.295	.266	.246	.172	.157	.147	.056	.052	.049	

C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2020-10-13

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.361  
 Humidity:65.0%  
 Test Distance:8.800m [K=1.0000]  
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:120.1V I:0.8382A P:99.43W PF:0.9878 Freq:49.99Hz Lamp Flux:11216.7x1 lm										
NAME: T20-100W-02					TYPE:			WEIGHT:		
SPEC.:5000K					DIM.:			SERIAL No.:		
MFR.:					SUR.:60cm*60cm			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	7.6	8.7	8.4	9.6	10.7	7.1	8.3	8.0	9.2	10.3
3H	11.1	12.2	12.0	13.1	14.2	10.7	11.8	11.6	12.7	13.8
4H	13.0	14.0	13.9	15.0	16.1	12.7	13.7	13.6	14.6	15.8
6H	15.2	16.1	16.0	17.0	18.2	15.0	15.9	15.8	16.8	18.0
8H	16.3	17.3	17.2	18.2	19.4	16.2	17.1	17.1	18.0	19.2
12H	17.7	18.6	18.6	19.5	20.7	17.5	18.4	18.4	19.3	20.5
4H 2H	8.6	9.6	9.4	10.5	11.7	8.2	9.2	9.1	10.1	11.3
3H	12.2	13.1	13.1	14.0	15.2	11.8	12.7	12.7	13.6	14.9
4H	14.3	15.1	15.2	16.0	17.3	13.9	14.7	14.9	15.7	16.9
6H	16.5	17.3	17.5	18.2	19.5	16.3	17.0	17.2	18.0	19.2
8H	17.8	18.5	18.8	19.5	20.7	17.6	18.3	18.5	19.2	20.5
12H	19.3	19.9	20.3	20.9	22.2	19.1	19.7	20.0	20.7	21.9
8H 4H	15.0	15.6	15.9	16.6	17.9	14.7	15.4	15.6	16.3	17.6
6H	17.5	18.1	18.5	19.1	20.4	17.3	17.8	18.2	18.8	20.1
8H	19.0	19.5	20.0	20.5	21.8	18.7	19.2	19.7	20.2	21.5
12H	20.7	21.1	21.7	22.1	23.5	20.4	20.8	21.4	21.9	23.2
12H 4H	15.1	15.8	16.1	16.8	18.0	14.9	15.5	15.9	16.5	17.8
6H	17.8	18.3	18.8	19.3	20.6	17.6	18.1	18.6	19.1	20.4
8H	19.4	19.9	20.4	20.9	22.2	19.2	19.6	20.1	20.6	21.9
Variations with the observer position at spacings:										
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, 11217 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 8.4)

C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2020-10-13

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.361  
 Humidity:65.0%  
 Test Distance:8.800m [K=1.0000]  
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:120.1V I:0.8382A P:99.43W PF:0.9878 Freq:49.99Hz Lamp Flux:11216.7x1 lm		
NAME: T20-100W-02	TYPE:	WEIGHT:
SPEC.:5000K	DIM.:	SERIAL No.:
MFR.:	SUR.:60cm*60cm	Shielding Angle:

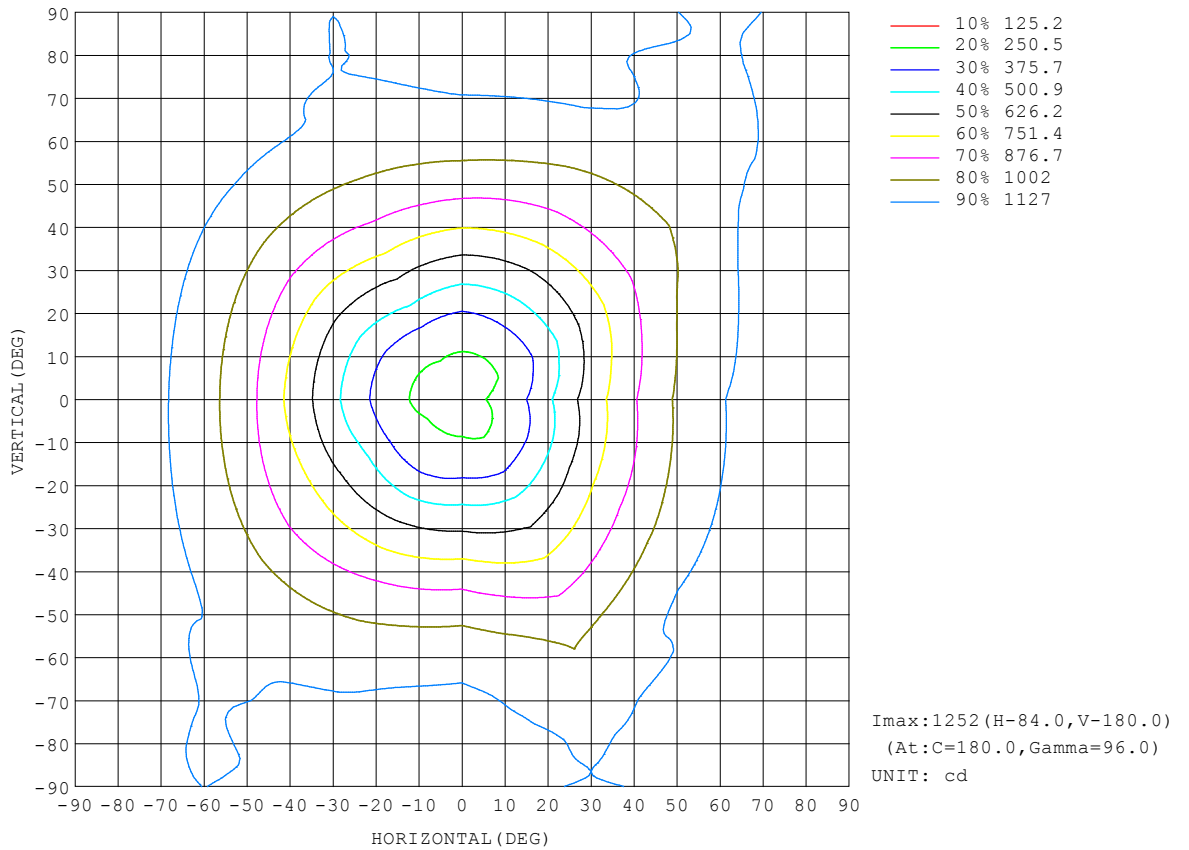
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	34	21	13	32	20	13	29	18	12	5
0.80	43	28	19	40	27	18	35	24	17	7
1.00	50	35	25	46	33	24	41	31	22	10
1.25	57	42	32	53	39	30	46	35	27	13
1.50	62	47	37	58	44	35	49	39	31	16
2.00	70	56	46	65	53	43	55	46	38	20
2.50	75	62	53	70	58	49	59	50	43	23
3.00	79	68	58	73	63	55	62	54	47	26
4.00	85	75	66	78	69	62	67	59	53	30
5.00	89	80	72	82	74	67	69	63	58	33
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2020-10-13

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.361  
 Humidity:65.0%  
 Test Distance:8.800m [K=1.0000]  
 Remarks:

ISOCANDELA DIAGRAM

Test:U:120.1V I:0.8382A P:99.43W PF:0.9878 Freq:49.99Hz Lamp Flux:11216.7x1 lm		
NAME: T20-100W-02	TYPE:	WEIGHT:
SPEC.:5000K	DIM.:	SERIAL No.:
MFR.:	SUR.:60cm*60cm	Shielding Angle:

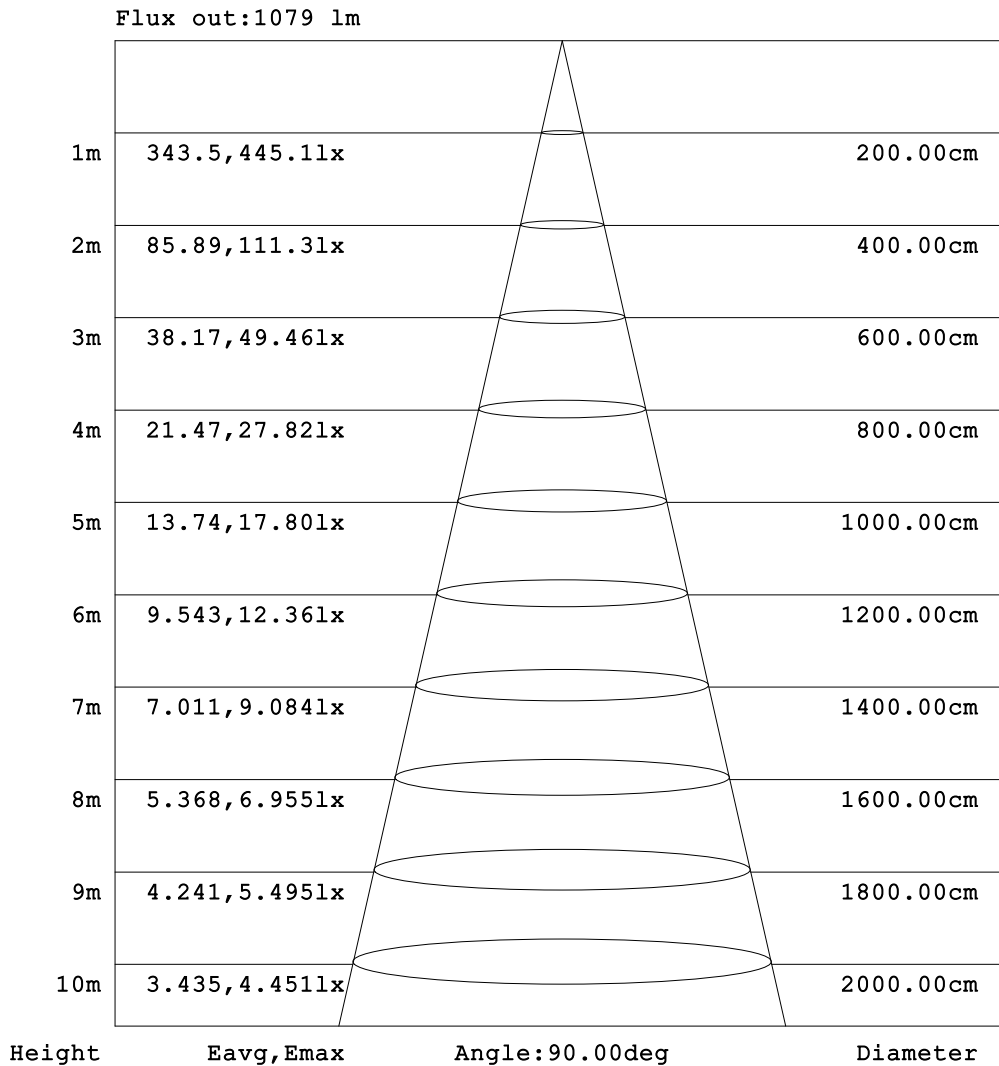


C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2020-10-13

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.361  
 Humidity:65.0%  
 Test Distance:8.800m [K=1.0000]  
 Remarks:

AAI Figure

Test:U:120.1V I:0.8382A P:99.43W PF:0.9878 Freq:49.99Hz Lamp Flux:11216.7x1 lm		
NAME: T20-100W-02	TYPE:	WEIGHT:
SPEC.:5000K	DIM.:	SERIAL No.:
MFR.:	SUR.:60cm*60cm	Shielding Angle:



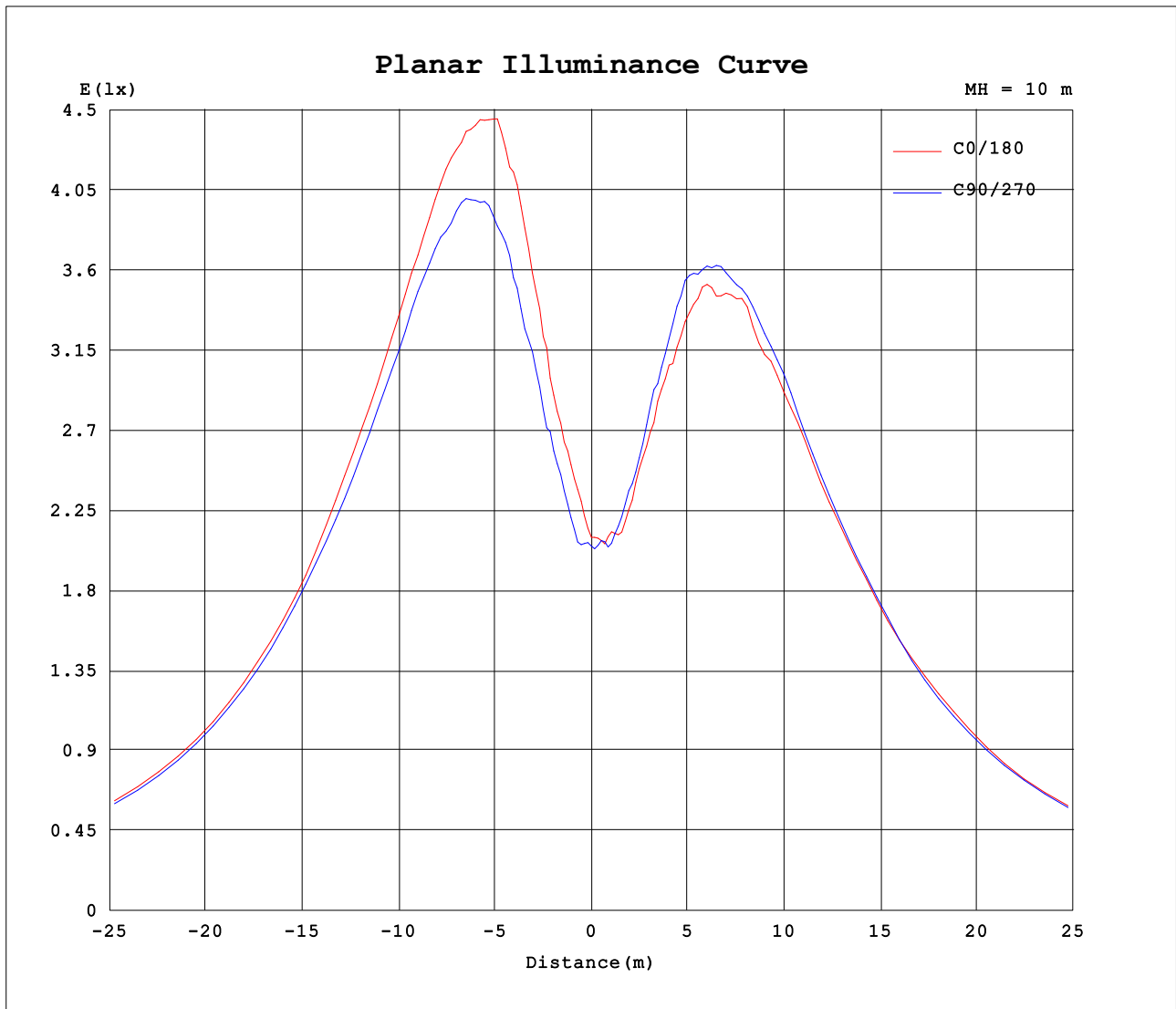
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2020-10-13

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.361  
 Humidity:65.0%  
 Test Distance:8.800m [K=1.0000]  
 Remarks:



Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DAMIN  
 Test Date: 2020-10-13

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.361  
 Humidity: 65.0%  
 Test Distance: 8.800m [K=1.0000]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.1V I:0.8382A P:99.43W PF:0.9878 Freq:49.99Hz Lamp Flux:11216.7x1 lm		
NAME: T20-100W-02	TYPE:	WEIGHT:
SPEC.:5000K	DIM.:	SERIAL No.:
MFR.:	SUR.:60cm*60cm	Shielding Angle:

Table--1

UNIT: cd

C (DEG) \ γ (DEG)	0	30	60	90	120	150	180	210	240	270	300	330							
0	210	203	207	205	210	216	210	203	207	205	210	216							
5	246	224	215	217	219	229	213	211	224	207	222	225							
10	294	269	249	263	260	259	229	237	249	239	243	251							
15	376	332	306	327	308	308	283	282	302	291	305	312							
20	477	425	385	408	383	391	353	360	396	368	386	394							
25	588	536	482	511	489	491	434	449	506	464	480	485							
30	685	640	564	613	597	576	540	548	599	555	557	589							
35	778	737	647	716	689	677	632	641	693	653	654	684							
40	867	830	731	810	775	763	731	738	789	755	753	770							
45	945	901	809	889	864	829	825	837	871	853	836	846							
50	1020	977	880	966	936	909	905	917	950	922	909	922							
55	1072	1042	946	1037	998	980	987	995	1001	995	977	970							
60	1119	1088	994	1086	1060	1038	1055	1057	1039	1037	1025	1006							
65	1152	1153	1024	1120	1096	1074	1097	1103	1078	1083	1088	1046							
70	1184	1148	1051	1159	1122	1115	1152	1177	1105	1121	1121	1082							
75	1184	1186	1084	1175	1166	1104	1192	1183	1114	1151	1151	1095							
80	1194	1185	1111	1190	1167	1120	1191	1186	1125	1152	1146	1086							
85	1221	1208	1121	1190	1167	1114	1209	1207	1124	1157	1161	1104							
90	1182	1169	1113	1181	1177	1126	1200	1205	1131	1183	1181	1102							
95	1169	1143	1096	1170	1175	1138	1245	1250	1137	1190	1179	1089							
100	1119	1135	1099	1144	1156	1103	1213	1195	1111	1159	1155	1066							
105	1138	1109	1090	1118	1109	1076	1170	1164	1098	1128	1125	1013							
110	1123	1096	1077	1111	1077	1045	1141	1127	1075	1109	1088	1016							
115	1021	1003	1052	1070	1062	1031	1133	1072	1061	1099	1064	978							
120	894	903	972	971	998	964	1094	1036	977	1037	1004	902							
125	773	802	888	895	893	886	1014	962	887	941	903	818							
130	680	731	823	815	806	801	941	880	807	862	826	753							
135	551	633	738	720	722	727	854	788	725	775	731	671							
140	389	503	631	620	610	623	744	674	632	669	617	572							
145	280	389	522	484	487	513	639	564	507	569	469	444							
150	215	288	394	386	389	416	510	457	411	438	362	338							
155	155	192	270	269	281	295	395	328	302	317	239	201							
160	87.9	97.3	166	168	174	203	276	228	193	217	150	103							
165	36.3	46.9	94.8	99.8	122	125	176	137	115	134	88.4	30.9							
170	15.5	23.6	51.0	47.6	66.2	64.0	104	73.9	61.0	64.5	40.5	20.7							
175	8.57	8.47	23.0	18.9	23.8	26.1	46.5	34.2	21.2	32.3	16.8	8.12							
180	8.84	7.93	7.69	7.48	7.46	7.62	9.01	7.83	7.76	7.40	7.55	7.55							

C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2020-10-13

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.361  
 Humidity:65.0%  
 Test Distance:8.800m [K=1.0000]  
 Remarks: