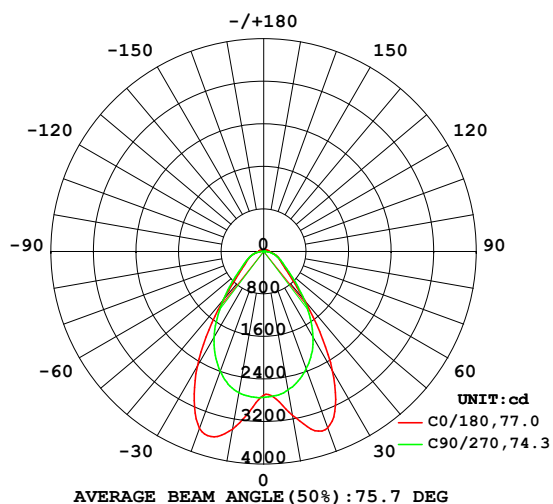


LUMINAIRE PHOTOMETRIC TEST REPORT

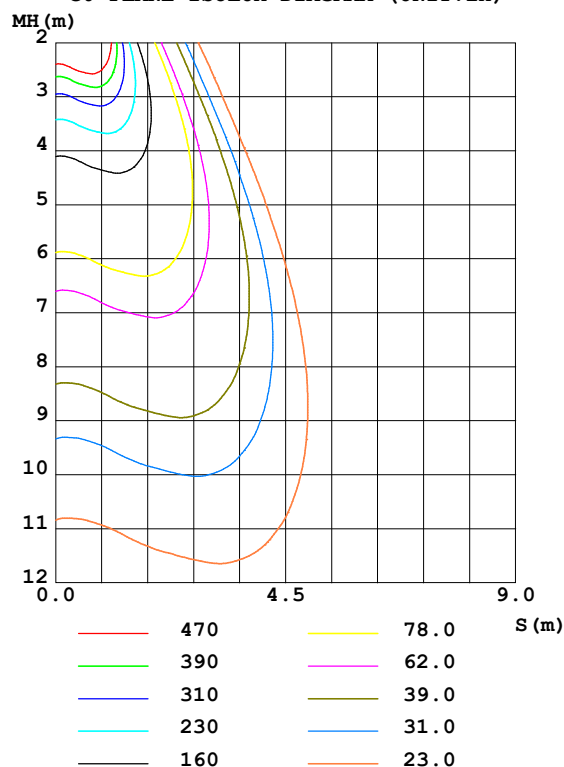
Test:U:222.47V I:0.1654A P:35.080W PF:0.9533 Freq:50.03Hz Lamp Flux:5717.44x1 lm		
NAME: LED Linear Lighting System	TYPE:	WEIGHT:2kg
SPEC.:	DIM.: 1500*60*45mm	SERIAL No.:
MFR.: CoreShine	SUR.:1500*60mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 162.98 lm/W			
MODEL	CTLS-1535-40DS-04WH	I _{max} (cd)	3638	S/MH (C0/180)	1.11
NOMINAL POWER (W)	35	LOR (%)	100.0	S/MH (C90/270)	1.07
RATED VOLTAGE (V)	230.0	TOTAL FLUX (lm)	5717.4	η UP, DN (C0-180)	1.8, 48.3
NOMINAL FLUX (lm)	5717.44	CIE CLASS	DIRECT	η UP, DN (C180-360)	1.8, 48.1
LAMPS INSIDE	1	η up (%)	3.6	CIBSE SHR NOM	1.00
TEST VOLTAGE (V)	230.0	η down (%)	96.4	CIBSE SHR MAX	1.15

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: zcx
 Test Date: 2020-07-03

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.366
 Humidity: 65.0%
 Test Distance: 8.330m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

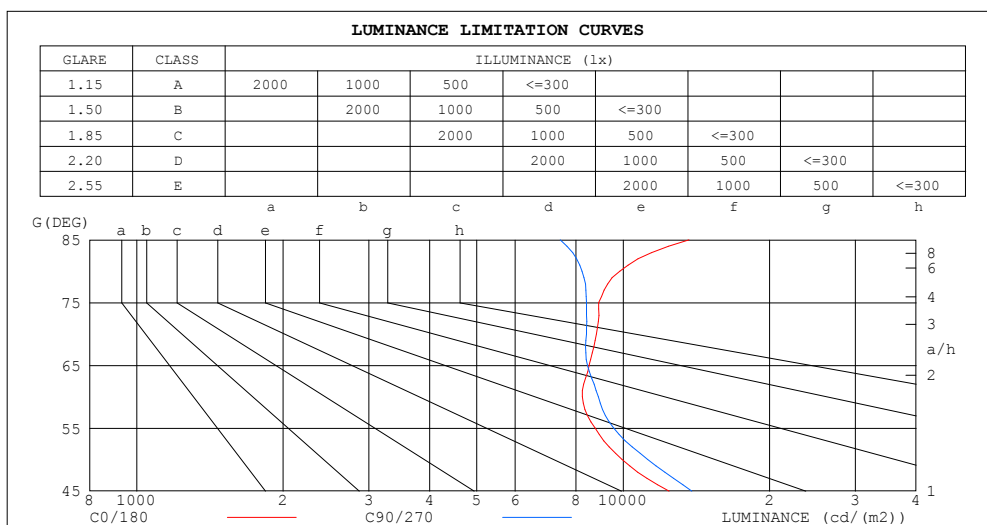
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	3129	2853	2644	3154	3392	3169	2698	2965	0- 10	275.8	275.8	4.82,4.82
20	3530	3151	2342	3407	3536	3419	2395	3244	10- 20	884.9	1161	20.3,20.3
30	2583	2684	1857	2901	2496	2819	1868	2818	20- 30	1326	2487	43.5,43.5
40	1199	1470	1184	1581	1173	1506	1182	1556	30- 40	1204	3691	64.6,64.6
50	575.4	666.6	649.7	706.2	569.2	693.9	640.4	684.0	40- 50	751.2	4442	77.7,77.7
60	371.0	375.5	399.9	391.1	371.0	389.6	397.3	378.4	50- 60	458.0	4900	85.7,85.7
70	271.0	234.4	258.9	240.4	265.2	241.0	262.5	234.9	60- 70	314.6	5215	91.2,91.2
80	153.8	127.2	128.7	129.3	148.0	130.5	134.4	126.5	70- 80	203.4	5418	94.8,94.8
90	70.99	59.99	6.003	60.45	73.53	60.70	6.586	56.35	80- 90	95.38	5513	96.4,96.4
100	82.96	55.21	7.147	53.08	90.51	51.56	7.097	49.18	90-100	54.08	5567	97.4,97.4
110	61.75	40.55	9.143	36.65	59.00	37.83	8.664	36.65	100-110	46.40	5614	98.2,98.2
120	42.72	28.07	10.08	30.10	40.55	31.83	10.22	26.78	110-120	32.09	5646	98.7,98.7
130	38.18	22.49	11.82	26.83	34.93	27.74	12.07	21.75	120-130	24.02	5670	99.2,99.2
140	33.16	21.15	13.46	25.29	29.68	25.83	13.76	20.56	130-140	18.49	5688	99.5,99.5
150	28.68	18.63	14.41	21.02	25.33	21.12	15.59	18.17	140-150	13.16	5701	99.7,99.7
160	22.71	17.93	17.05	17.85	20.84	17.68	17.27	17.82	150-160	8.852	5710	99.9,99.9
170	19.66	19.11	19.12	18.37	19.63	18.29	19.26	19.11	160-170	5.237	5716	100,100
180	21.49	20.33	20.25	20.33	21.59	20.37	20.28	20.37	170-180	1.875	5717	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:zcx
 Test Date:2020-07-03

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:8.330m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:222.47V I:0.1654A P:35.080W PF:0.9533 Freq:50.03Hz Lamp Flux:5717.44x1 lm		
NAME: LED Linear Lighting System	TYPE:	WEIGHT:2kg
SPEC.:	DIM.: 1500*60*45mm	SERIAL No.:
MFR.: CoreShine	SUR.:1500*60mm	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	13653	7429
80	9842	8236
75	8912	8411
70	8805	8412
65	8515	8445
60	8243	8886
55	8757	9559
50	9945	11230
45	12423	13842

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:zcx
Test Date:2020-07-03

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:8.330m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:222.47V I:0.1654A P:35.080W PF:0.9533 Freq:50.03Hz Lamp Flux:5717.44x1 lm		
NAME: LED Linear Lighting System	TYPE:	WEIGHT:2kg
SPEC.:	DIM.: 1500*60*45mm	SERIAL No.:
MFR.: CoreShine	SUR.:1500*60mm	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	.256	.145	.046	.248	.141	.045	.233	.133	.043	.219	.126	.041	.206	.120	.039		
2.0	.239	.131	.040	.232	.128	.039	.219	.122	.038	.207	.116	.036	.196	.111	.035		
3.0	.223	.119	.036	.217	.116	.035	.205	.111	.034	.195	.107	.033	.185	.102	.032		
4.0	.208	.108	.032	.203	.106	.031	.192	.102	.030	.183	.098	.030	.174	.095	.029		
5.0	.195	.099	.029	.190	.097	.028	.181	.094	.028	.172	.091	.027	.164	.088	.026		
6.0	.183	.092	.026	.178	.090	.026	.170	.087	.025	.163	.084	.025	.155	.082	.024		
7.0	.172	.085	.024	.168	.084	.024	.161	.081	.023	.154	.079	.023	.147	.077	.022		
8.0	.162	.079	.022	.159	.078	.022	.152	.076	.022	.146	.074	.021	.140	.072	.021		
9.0	.153	.074	.021	.150	.073	.021	.144	.071	.020	.139	.069	.020	.133	.068	.020		
10.0	.145	.070	.019	.143	.069	.019	.137	.067	.019	.132	.066	.019	.127	.064	.018		

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	.218	.218	.218	.186	.186	.186	.127	.127	.127	.073	.073	.073	.023	.023	.023	
1.0	.204	.184	.166	.175	.158	.143	.119	.109	.099	.069	.063	.057	.022	.020	.019	
2.0	.193	.160	.132	.165	.138	.114	.113	.095	.080	.065	.055	.047	.021	.018	.015	
3.0	.183	.142	.109	.157	.122	.094	.108	.085	.066	.062	.050	.039	.020	.016	.013	
4.0	.175	.128	.092	.150	.111	.080	.103	.077	.056	.060	.045	.033	.019	.015	.011	
5.0	.167	.117	.080	.143	.101	.070	.099	.071	.049	.057	.042	.029	.018	.014	.010	
6.0	.160	.108	.072	.137	.094	.062	.095	.066	.044	.055	.039	.026	.018	.013	.009	
7.0	.153	.101	.065	.132	.088	.057	.091	.062	.040	.053	.036	.024	.017	.012	.008	
8.0	.147	.096	.060	.127	.083	.052	.088	.058	.037	.051	.034	.022	.017	.011	.007	
9.0	.142	.091	.056	.122	.079	.049	.085	.055	.035	.049	.033	.021	.016	.011	.007	
10.0	.137	.086	.053	.118	.075	.046	.082	.053	.033	.048	.031	.019	.015	.010	.006	

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:zcx
 Test Date:2020-07-03

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:8.330m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:222.47V I:0.1654A P:35.080W PF:0.9533 Freq:50.03Hz Lamp Flux:5717.44x1 lm										
NAME: LED Linear Lighting System					TYPE:			WEIGHT:2kg		
SPEC.:					DIM.: 1500*60*45mm			SERIAL No.:		
MFR.: CoreShine					SUR.:1500*60mm			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	12.9	14.1	13.2	14.3	14.6	13.6	14.9	13.9	15.1	15.4
3H	14.0	15.1	14.3	15.4	15.7	14.6	15.7	14.9	16.0	16.3
4H	14.6	15.7	15.0	16.0	16.3	15.1	16.1	15.4	16.4	16.8
6H	15.2	16.3	15.6	16.6	16.9	15.5	16.5	15.9	16.8	17.2
8H	15.6	16.5	15.9	16.9	17.2	15.7	16.6	16.1	17.0	17.3
12H	15.9	16.8	16.3	17.2	17.6	15.8	16.7	16.2	17.1	17.4
4H 2H	13.2	14.3	13.5	14.6	14.9	13.8	14.9	14.2	15.2	15.5
3H	14.5	15.5	14.9	15.8	16.2	15.0	16.0	15.4	16.3	16.7
4H	15.3	16.2	15.7	16.6	16.9	15.7	16.5	16.1	16.9	17.3
6H	16.1	16.9	16.6	17.3	17.7	16.3	17.1	16.8	17.5	17.9
8H	16.6	17.3	17.0	17.7	18.1	16.6	17.2	17.0	17.7	18.1
12H	17.0	17.7	17.5	18.1	18.6	16.7	17.4	17.2	17.8	18.3
8H 4H	15.6	16.3	16.0	16.7	17.1	15.9	16.6	16.4	17.0	17.5
6H	16.6	17.2	17.1	17.6	18.1	16.7	17.3	17.2	17.7	18.2
8H	17.1	17.6	17.6	18.1	18.7	17.0	17.6	17.5	18.0	18.6
12H	17.8	18.2	18.3	18.7	19.3	17.3	17.8	17.9	18.3	18.8
12H 4H	15.6	16.2	16.1	16.7	17.1	15.9	16.6	16.4	17.0	17.5
6H	16.7	17.2	17.2	17.7	18.2	16.8	17.3	17.3	17.8	18.3
8H	17.3	17.7	17.8	18.2	18.8	17.2	17.6	17.7	18.1	18.7
Variations with the observer position at spacings:										
S = 1.0H	+ 0.4 / - 0.4					+ 0.5 / - 0.5				
1.5H	+ 0.5 / - 0.3					+ 0.5 / - 0.5				
2.0H	+ 0.4 / - 0.2					+ 0.8 / - 0.5				

CIE Pub.117, 5717 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 6.1$)

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:zcx
 Test Date:2020-07-03

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:8.330m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:222.47V I:0.1654A P:35.080W PF:0.9533 Freq:50.03Hz Lamp Flux:5717.44x1 lm		
NAME: LED Linear Lighting System	TYPE:	WEIGHT:2kg
SPEC.:	DIM.: 1500*60*45mm	SERIAL No.:
MFR.: CoreShine	SUR.:1500*60mm	Shielding Angle:

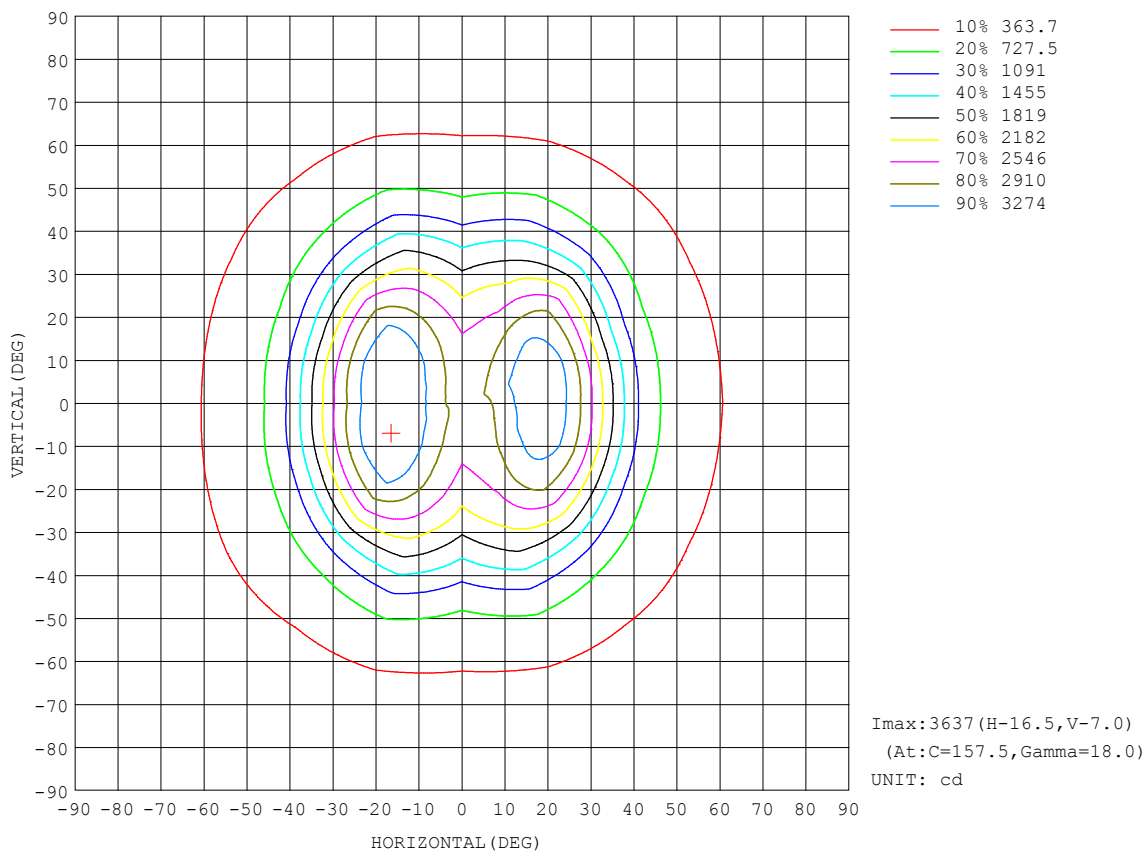
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	70	60	55	69	60	55	68	59	54	49
0.80	79	69	64	78	69	63	76	68	63	57
1.00	85	76	71	84	76	70	82	76	70	64
1.25	91	83	77	90	82	77	87	80	76	69
1.50	95	87	82	93	86	81	90	84	80	73
2.00	100	93	88	98	92	87	94	89	85	78
2.50	103	97	92	101	95	91	97	92	88	81
3.00	105	100	95	103	98	94	99	95	91	83
4.00	108	104	100	106	102	98	101	98	95	86
5.00	110	106	103	108	104	101	103	100	98	88
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:zcx
 Test Date:2020-07-03

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:8.330m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:222.47V I:0.1654A P:35.080W PF:0.9533 Freq:50.03Hz Lamp Flux:5717.44x1 lm		
NAME: LED Linear Lighting System	TYPE:	WEIGHT:2kg
SPEC.:	DIM.: 1500*60*45mm	SERIAL No.:
MFR.: CoreShine	SUR.:1500*60mm	Shielding Angle:

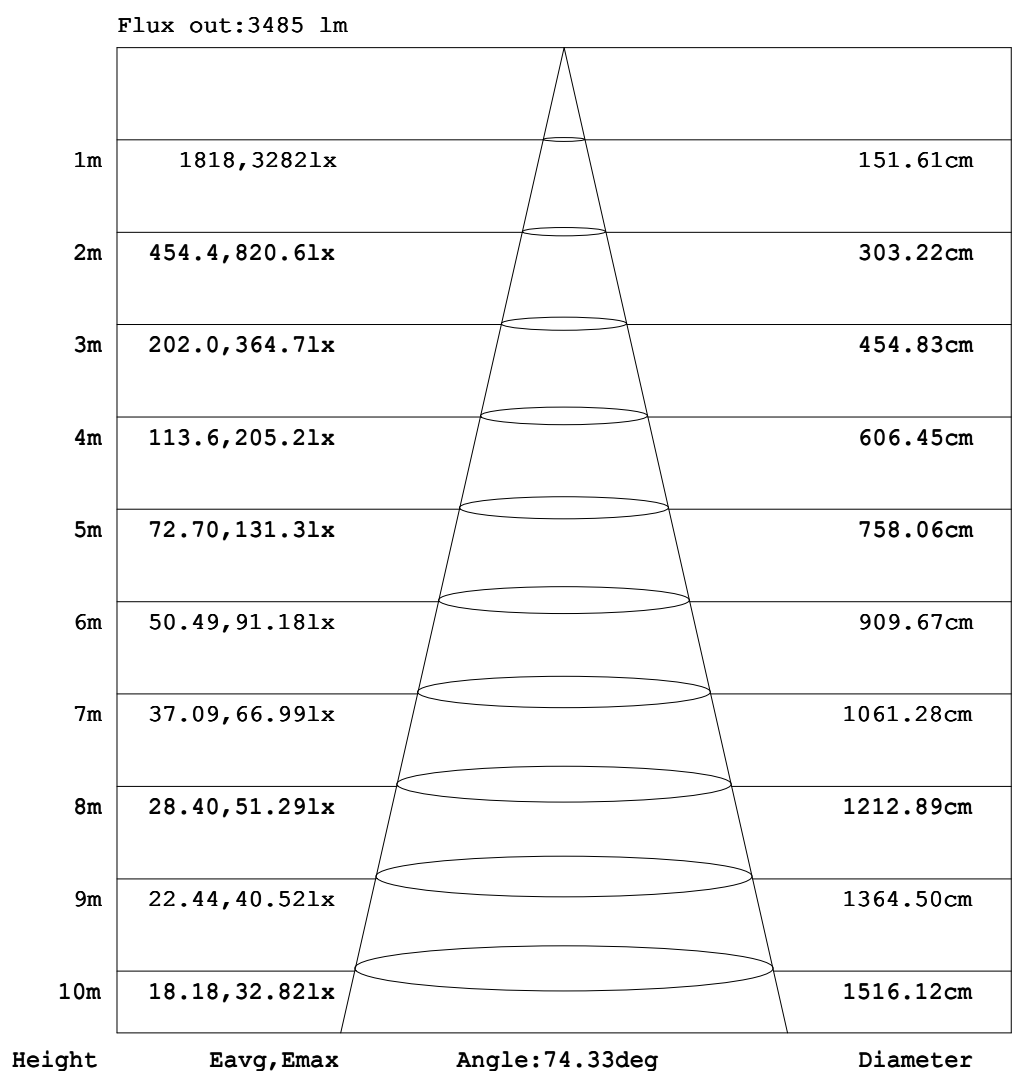


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:zcx
Test Date:2020-07-03

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:8.330m [K=1.0000]
Remarks:

AAI Figure

Test:U:222.47V I:0.1654A P:35.080W PF:0.9533 Freq:50.03Hz Lamp Flux:5717.44x1 lm		
NAME: LED Linear Lighting System	TYPE:	WEIGHT:2kg
SPEC.:	DIM.: 1500*60*45mm	SERIAL No.:
MFR.: CoreShine	SUR.:1500*60mm	Shielding Angle:

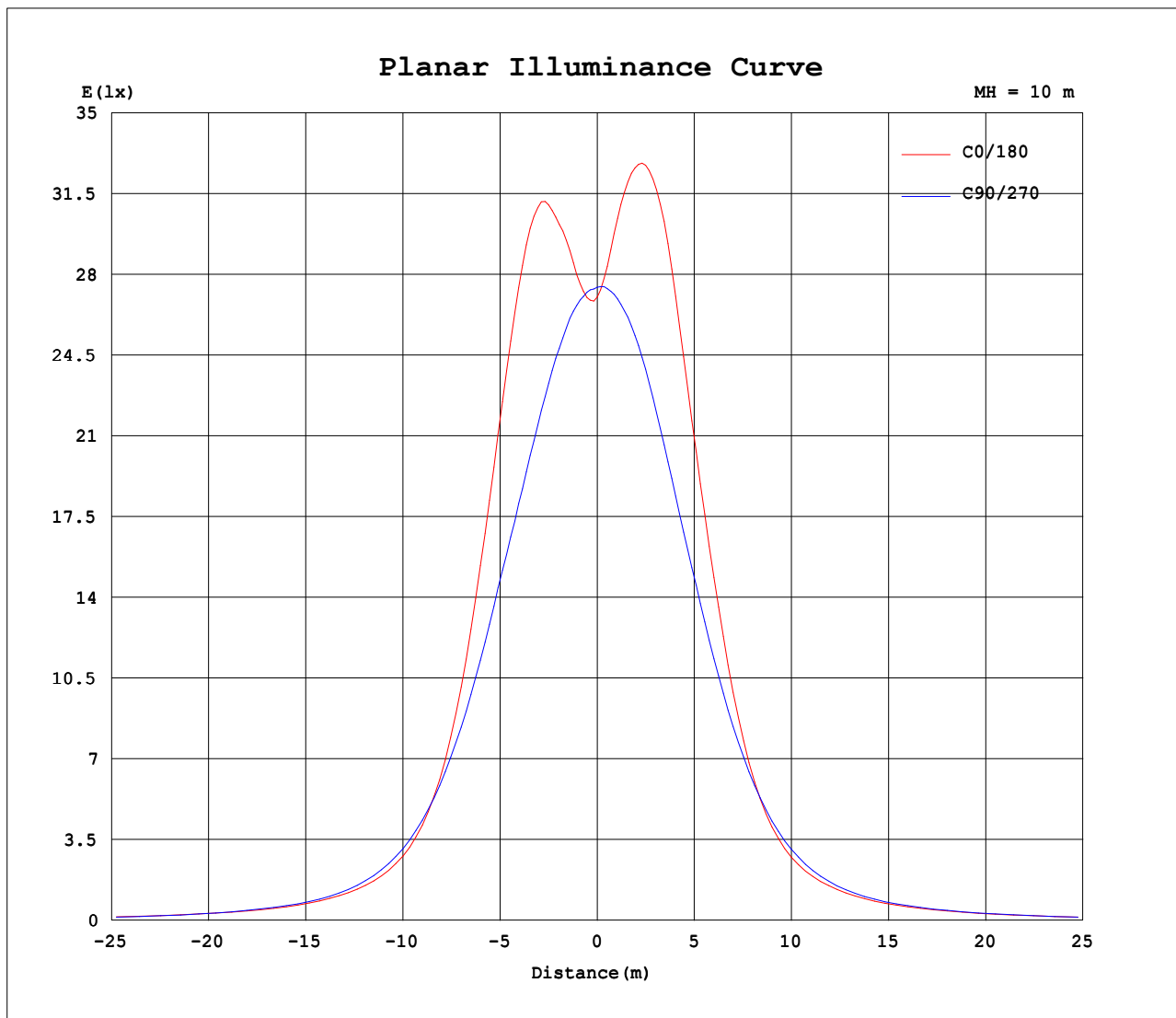


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:zcx
 Test Date:2020-07-03

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:8.330m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: zcx
Test Date: 2020-07-03

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.366
Humidity: 65.0%
Test Distance: 8.330m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:222.47V I:0.1654A P:35.080W PF:0.9533 Freq:50.03Hz Lamp Flux:5717.44x1 lm		
NAME: LED Linear Lighting System	TYPE:	WEIGHT:2kg
SPEC.:	DIM.: 1500*60*45mm	SERIAL No.:
MFR.: CoreShine	SUR.:1500*60mm	Shielding Angle:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5			
0	2702	2689	2689	2702	2745	2764	2783	2783	2702	2689	2689	2702	2745	2764	2783	2783			
5	2791	2743	2692	2671	2721	2797	2939	3024	3012	2981	2887	2791	2745	2738	2819	2885			
10	3129	3043	2853	2671	2644	2863	3154	3352	3392	3346	3169	2883	2698	2736	2965	3183			
15	3458	3348	3027	2649	2519	2886	3332	3591	3606	3582	3367	2930	2585	2705	3135	3457			
20	3530	3485	3151	2595	2342	2845	3407	3610	3536	3588	3419	2876	2395	2633	3244	3558			
25	3201	3242	3064	2456	2132	2686	3296	3288	3098	3237	3264	2705	2159	2449	3174	3288			
30	2583	2668	2684	2235	1857	2421	2901	2691	2496	2620	2819	2424	1868	2178	2818	2666			
35	1841	1928	2088	1937	1524	2065	2266	1969	1800	1895	2162	2053	1529	1842	2223	1892			
40	1199	1255	1470	1530	1184	1638	1581	1314	1173	1256	1506	1603	1182	1450	1556	1229			
45	791	821	983	1124	881	1208	1050	871	776	835	1008	1168	871	1068	1022	811			
50	575	577	667	800	650	857	706	615	569	590	694	820	640	758	684	573			
55	452	443	489	577	493	613	516	477	446	456	513	594	489	555	499	443			
60	371	355	376	430	400	450	391	386	371	369	390	444	397	420	378	357			
65	324	292	297	332	321	342	307	323	314	305	307	343	322	327	298	292			
70	271	241	234	256	259	261	240	262	265	248	241	265	262	254	235	241			
75	208	189	177	194	196	195	181	202	199	193	183	200	200	192	177	187			
80	154	141	127	131	129	131	129	148	148	141	131	135	134	131	127	139			
85	107	98.8	85.3	72.3	58.3	71.7	86.3	103	101	99.9	87.7	75.8	65.8	73.3	85.1	95.6			
90	71.0	64.3	60.0	35.2	6.00	35.2	60.4	70.0	73.5	67.5	60.7	36.2	6.59	32.0	56.3	61.4			
95	76.2	65.8	63.4	31.8	6.46	29.0	63.1	70.1	83.0	69.8	63.1	30.6	6.46	28.5	59.2	63.9			
100	83.0	76.0	55.2	23.1	7.15	20.2	53.1	81.3	90.5	82.1	51.6	22.7	7.10	20.9	49.2	69.9			
105	75.7	64.8	49.6	23.6	8.13	22.3	45.0	66.4	71.6	65.2	49.2	23.8	7.81	20.6	47.4	62.3			
110	61.8	55.0	40.6	21.0	9.14	19.9	36.6	55.9	59.0	53.2	37.8	20.6	8.66	19.6	36.6	53.5			
115	51.4	46.6	33.9	20.4	9.51	19.8	33.0	46.9	48.3	45.6	35.0	21.0	9.40	18.9	32.2	45.0			
120	42.7	40.2	28.1	19.3	10.1	19.1	30.1	40.3	40.6	39.4	31.8	20.4	10.2	18.0	26.8	39.5			
125	40.3	37.9	24.2	18.5	11.0	18.4	28.1	36.9	37.3	36.2	29.4	19.8	11.1	17.2	22.7	37.1			
130	38.2	35.4	22.5	17.5	11.8	17.7	26.8	34.1	34.9	33.5	27.7	19.0	12.1	16.6	21.8	34.2			
135	36.2	32.3	21.9	16.6	12.6	17.0	25.7	31.3	32.5	30.8	27.0	18.1	12.9	15.6	21.0	29.3			
140	33.2	26.9	21.1	14.2	13.5	16.1	25.3	29.3	29.7	28.7	25.8	16.9	13.8	15.0	20.6	24.2			
145	31.0	24.0	20.0	14.2	14.3	15.5	23.5	26.4	28.2	25.6	24.0	16.1	14.7	14.0	19.4	22.4			
150	28.7	22.8	18.6	14.8	14.4	15.5	21.0	25.5	25.3	24.6	21.1	15.7	15.6	14.8	18.2	21.7			
155	26.1	21.2	18.0	15.8	15.8	15.6	18.9	22.9	23.4	22.1	18.9	16.0	16.0	15.9	17.6	20.4			
160	22.7	20.0	17.9	16.8	17.0	16.3	17.9	20.2	20.8	19.5	17.7	16.5	17.3	17.1	17.8	19.2			
165	20.3	19.1	18.4	18.0	18.2	17.6	17.8	18.6	19.3	18.2	17.7	17.7	18.4	18.3	18.3	18.7			
170	19.7	19.4	19.1	19.1	19.1	18.8	18.4	18.5	19.6	18.4	18.3	18.9	19.3	19.3	19.1	19.2			
175	20.7	20.4	20.0	19.9	19.8	19.8	19.6	19.6	20.8	19.7	19.6	19.8	19.9	20.0	20.0	20.2			
180	21.5	20.8	20.3	20.3	20.3	20.3	20.3	20.6	21.6	20.7	20.4	20.2	20.3	20.3	20.4	20.6			

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:zcx
Test Date:2020-07-03

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:8.330m [K=1.0000]
Remarks: