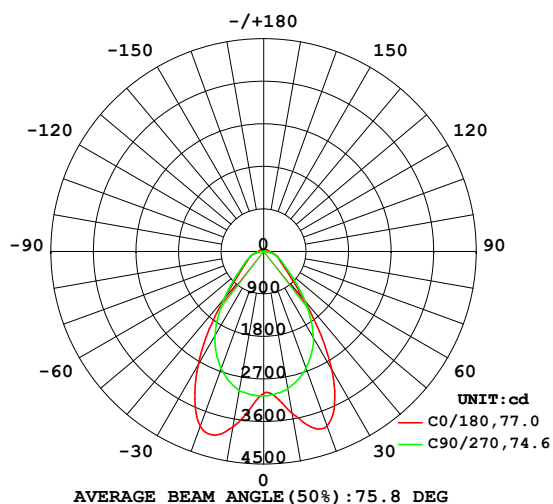


LUMINAIRE PHOTOMETRIC TEST REPORT

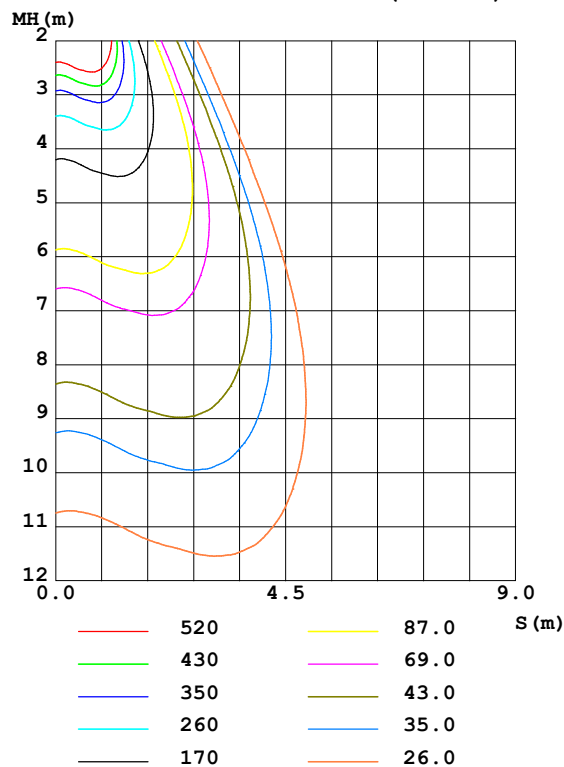
Test:U:221.00V I:0.1873A P:39.788W PF:0.9613 Freq:49.95Hz Lamp Flux:6400.3x1 lm		
NAME: LED Linear Lighting System	TYPE:	WEIGHT:2kg
SPEC.:	DIM.: 1500*60*45mm	SERIAL No.:
MFR.: CoreShine	SUR.:1500*60mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 160.86 lm/W			
MODEL	CTLS-1540-40DS-04WH	I _{max} (cd)	4141	S/MH (C0/180)	1.11
NOMINAL POWER (W)	40	LOR (%)	100.0	S/MH (C90/270)	1.06
RATED VOLTAGE (V)	230.0	TOTAL FLUX (lm)	6400.3	η UP, DN (C0-180)	1.8, 48.5
NOMINAL FLUX (lm)	6400.3	CIE CLASS	DIRECT	η UP, DN (C180-360)	1.8, 47.9
LAMPS INSIDE	1	η up (%)	3.6	CIBSE SHR NOM	1.00
TEST VOLTAGE (V)	230.0	η down (%)	96.4	CIBSE SHR MAX	1.10

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:

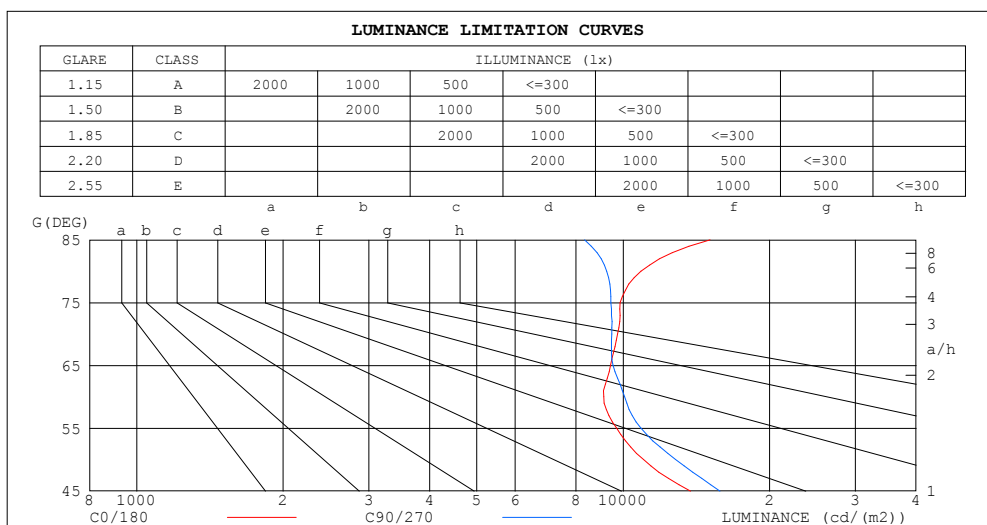
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	3477	3157	2942	3552	3771	3503	2983	3330	0- 10	307.7	307.7	4.81,4.81
20	3925	3483	2629	3880	3936	3775	2639	3685	10- 20	988.1	1296	20.2,20.2
30	2875	2994	2108	3307	2774	3129	2066	3188	20- 30	1485	2781	43.5,43.5
40	1320	1661	1348	1781	1305	1681	1299	1721	30- 40	1349	4130	64.5,64.5
50	637.1	754.6	740.9	792.7	631.8	777.0	705.9	752.8	40- 50	841.3	4971	77.7,77.7
60	410.3	424.2	452.8	437.4	411.7	438.7	441.9	418.1	50- 60	513.1	5485	85.7,85.7
70	299.6	264.3	291.7	270.9	294.4	271.4	291.3	262.2	60- 70	352.5	5837	91.2,91.2
80	169.9	142.6	144.6	145.3	164.3	146.4	149.5	140.9	70- 80	227.8	6065	94.8,94.8
90	78.57	66.08	6.537	69.11	81.65	66.71	7.020	64.26	80- 90	106.7	6172	96.4,96.4
100	91.52	59.60	7.879	62.54	101.1	55.62	8.029	56.74	90-100	60.46	6232	97.4,97.4
110	68.47	43.76	10.07	42.55	65.42	41.40	9.911	42.81	100-110	51.92	6284	98.2,98.2
120	47.45	30.61	11.09	34.54	45.14	35.17	11.74	30.93	110-120	35.95	6320	98.7,98.7
130	42.54	24.76	13.04	30.29	38.83	31.14	13.85	24.72	120-130	26.96	6347	99.2,99.2
140	36.99	23.28	14.84	28.51	33.00	28.76	15.75	23.75	130-140	20.74	6368	99.5,99.5
150	32.04	20.45	15.96	23.91	28.23	23.39	17.75	20.86	140-150	14.76	6382	99.7,99.7
160	25.47	19.94	18.95	19.96	23.23	19.86	19.65	20.27	150-160	9.931	6392	99.9,99.9
170	22.22	21.36	21.37	20.50	21.93	20.68	21.80	21.57	160-170	5.885	6398	100,100
180	24.17	22.83	22.77	22.87	24.25	22.89	22.81	22.89	170-180	2.108	6400	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:221.00V I:0.1873A P:39.788W PF:0.9613 Freq:49.95Hz Lamp Flux:6400.3x1 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:

WEC AND CCEC

Test:U:221.00V I:0.1873A P:39.788W PF:0.9613 Freq:49.95Hz Lamp Flux:6400.3x1 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	.134	.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	.193	.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	.085	.025	.156	.082	.024		
7.0	.172	.085	.024	.168	.084	.024	.161	.081	.023	.154	.079	.023	.147	.077	.023		
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	.109	.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:221.00V I:0.1873A P:39.788W PF:0.9613 Freq:49.95Hz Lamp Flux:6400.3x1 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	12.8	14.1	13.1	14.3	14.6	13.7	14.9	14.0	15.2	15.4
3H	13.9	15.1	14.3	15.4	15.7	14.6	15.8	15.0	16.1	16.3
4H	14.6	15.6	14.9	15.9	16.3	15.1	16.2	15.5	16.5	16.8
6H	15.2	16.2	15.6	16.5	16.9	15.6	16.6	15.9	16.9	17.2
8H	15.5	16.5	15.9	16.8	17.2	15.7	16.7	16.1	17.0	17.4
12H	15.8	16.8	16.2	17.1	17.5	15.8	16.8	16.2	17.1	17.5
4H 2H	13.2	14.3	13.5	14.6	14.9	13.9	15.0	14.3	15.3	15.6
3H	14.5	15.4	14.9	15.8	16.2	15.1	16.0	15.5	16.4	16.7
4H	15.3	16.1	15.7	16.5	16.9	15.8	16.6	16.2	17.0	17.4
6H	16.1	16.8	16.5	17.2	17.7	16.4	17.1	16.8	17.5	18.0
8H	16.5	17.2	17.0	17.6	18.1	16.6	17.3	17.1	17.7	18.2
12H	17.0	17.6	17.4	18.0	18.5	16.8	17.4	17.2	17.9	18.3
8H 4H	15.5	16.2	16.0	16.6	17.1	15.9	16.6	16.4	17.1	17.5
6H	16.5	17.1	17.0	17.6	18.1	16.7	17.3	17.2	17.8	18.3
8H	17.1	17.6	17.6	18.1	18.6	17.1	17.6	17.6	18.1	18.6
12H	17.7	18.1	18.2	18.6	19.2	17.4	17.8	17.9	18.3	18.9
12H 4H	15.5	16.2	16.0	16.6	17.1	16.0	16.6	16.4	17.0	17.5
6H	16.6	17.1	17.1	17.6	18.1	16.8	17.3	17.3	17.8	18.3
8H	17.2	17.7	17.8	18.2	18.7	17.2	17.7	17.7	18.2	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, 6400 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 6.4$)

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:221.00V I:0.1873A P:39.788W PF:0.9613 Freq:49.95Hz Lamp Flux:6400.3x1 lm		
NAME: LED Linear Lighting System	TYPE:	WEIGHT:2kg
SPEC.:	DIM.: 1500*60*45mm	SERIAL No.:
MFR.: CoreShine	SUR.:1500*60mm	Shielding Angle:

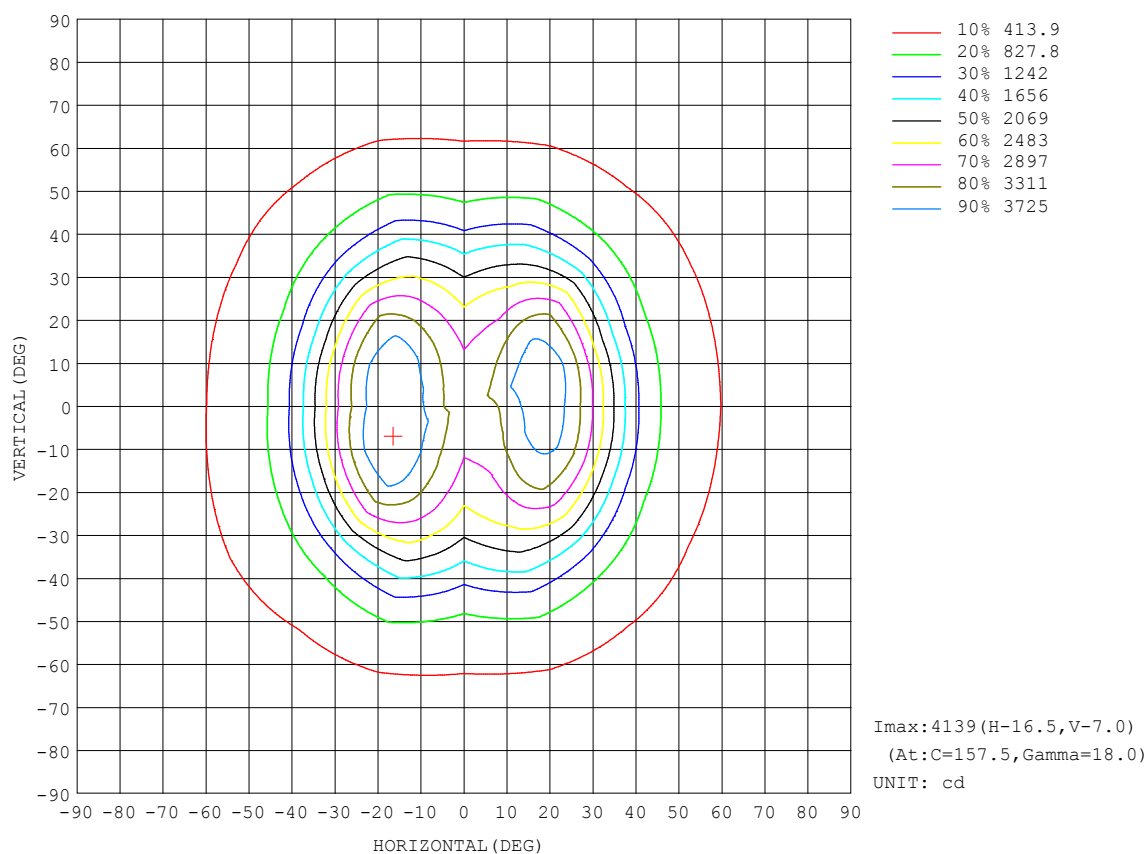
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	70	60	55	69	60	55	68	59	54	49
0.80	78	69	64	78	69	63	76	68	63	57
1.00	85	76	71	84	76	70	82	76	70	64
1.25	91	83	77	89	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	80
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:221.00V I:0.1873A P:39.788W PF:0.9613 Freq:49.95Hz Lamp Flux:6400.3x1 lm		
NAME: LED Linear Lighting System	TYPE:	WEIGHT:2kg
SPEC.:	DIM.: 1500*60*45mm	SERIAL No.:
MFR.: CoreShine	SUR.:1500*60mm	Shielding Angle:

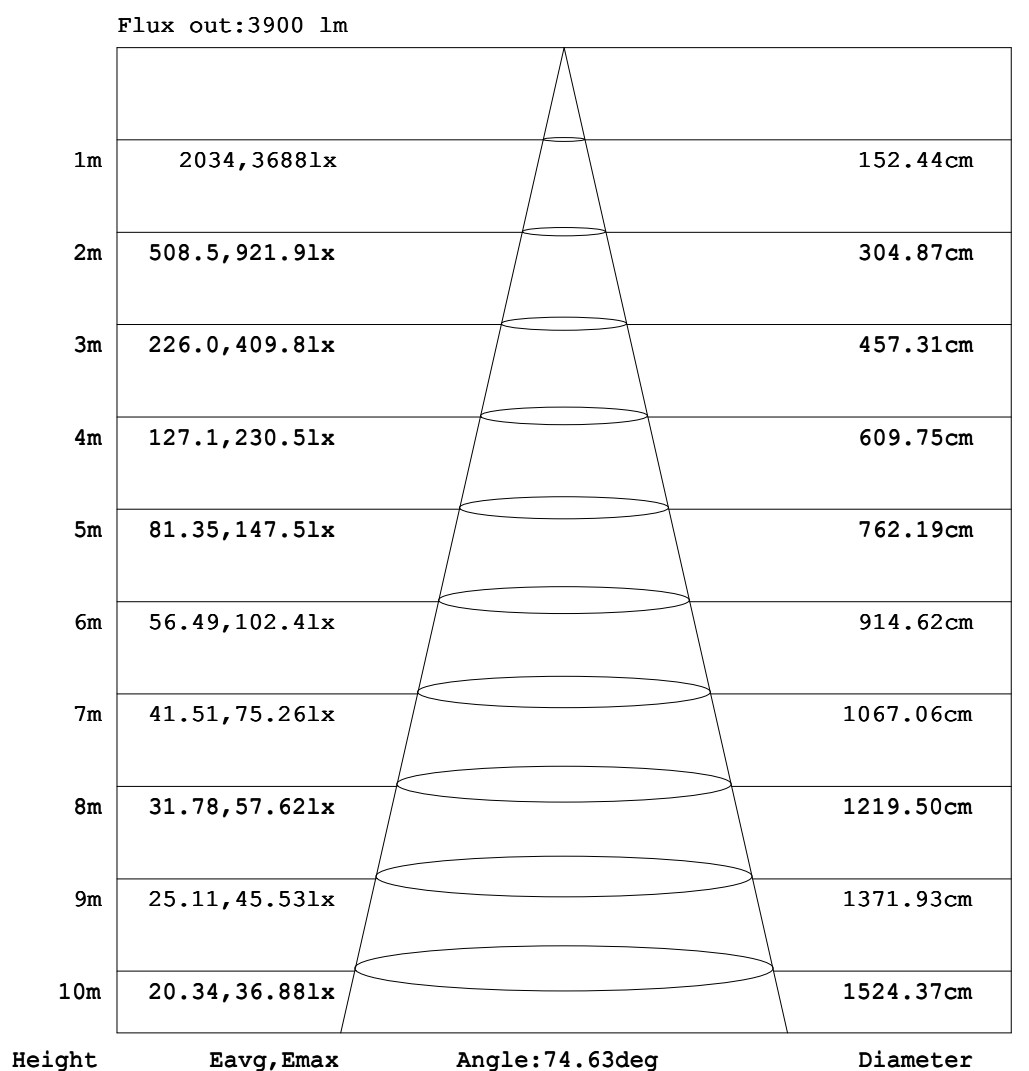


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:zcx
Test Date:2020-07-03

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:221.00V I:0.1873A P:39.788W PF:0.9613 Freq:49.95Hz Lamp Flux:6400.3x1 lm		
NAME: LED Linear Lighting System	TYPE:	WEIGHT:2kg
SPEC.:	DIM.: 1500*60*45mm	SERIAL No.:
MFR.: CoreShine	SUR.:1500*60mm	Shielding Angle:

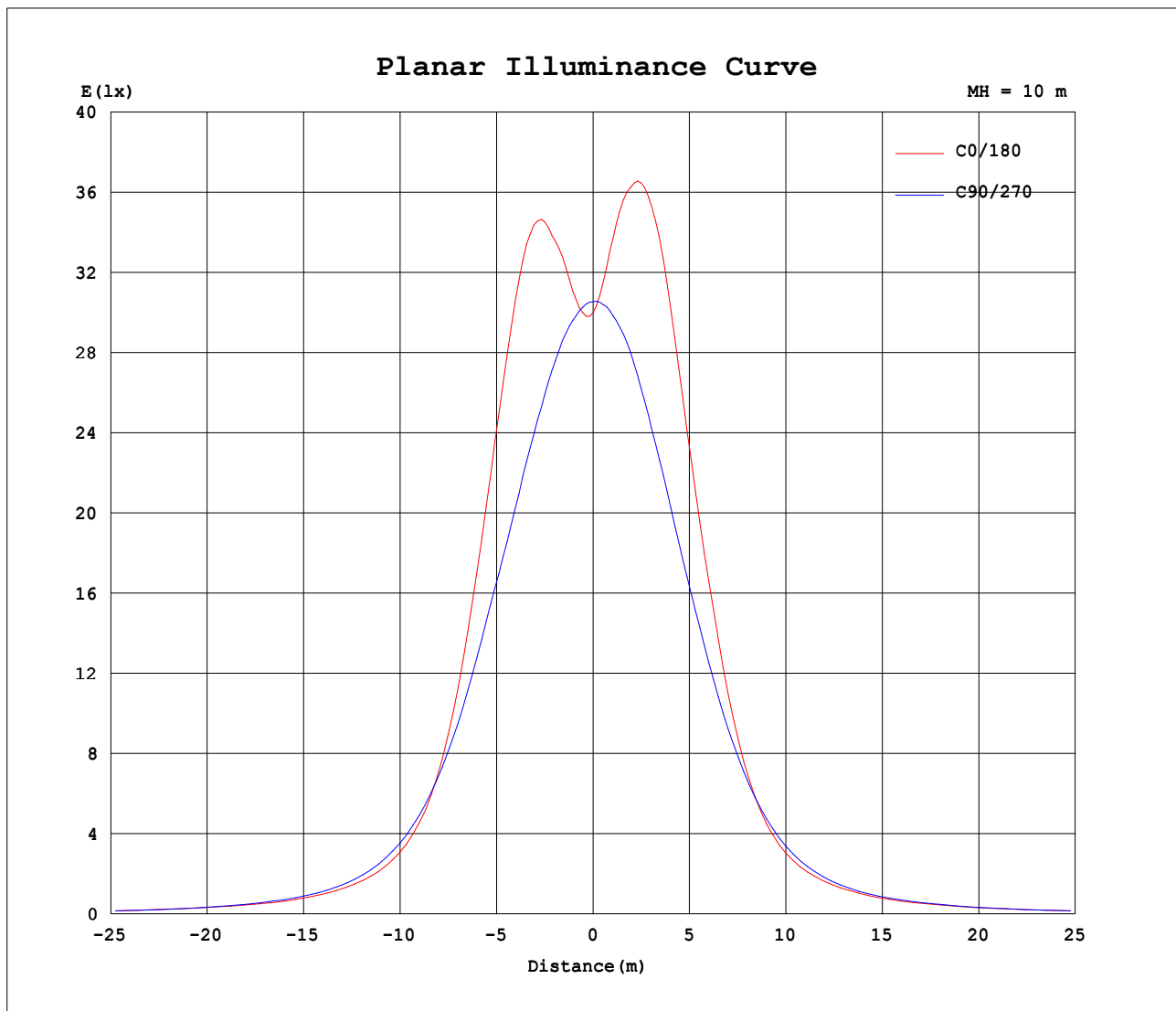


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:221.00V I:0.1873A P:39.788W PF:0.9613 Freq:49.95Hz Lamp Flux:6400.3x1 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	3002	2985	2988	2998	3055	3097	3121	3144	3002	2985	2988	2998	3055	3097	3121	3144			
5	3098	3039	2988	2960	3019	3147	3297	3418	3344	3313	3208	3085	3045	3078	3157	3261			
10	3477	3369	3157	2942	2942	3223	3552	3803	3771	3715	3503	3185	2983	3077	3330	3612			
15	3845	3706	3355	2920	2806	3265	3768	4081	4021	3972	3720	3227	2841	3048	3530	3935			
20	3925	3872	3483	2853	2629	3209	3880	4108	3936	3979	3775	3154	2639	2954	3685	4033			
25	3554	3618	3391	2698	2395	3071	3753	3745	3451	3607	3611	2957	2373	2769	3619	3718			
30	2875	2977	2994	2477	2108	2767	3307	3050	2774	2926	3129	2655	2066	2467	3188	3003			
35	2047	2157	2350	2153	1732	2377	2570	2237	2007	2112	2407	2244	1685	2079	2492	2127			
40	1320	1405	1661	1724	1348	1882	1781	1493	1305	1397	1681	1761	1299	1633	1721	1381			
45	876	915	1119	1272	1006	1388	1175	991	862	926	1129	1275	959	1197	1119	911			
50	637	643	755	904	741	977	793	696	632	654	777	906	706	849	753	644			
55	501	491	555	653	561	695	579	541	495	505	576	661	541	621	551	499			
60	410	394	424	486	453	509	437	440	412	408	439	497	442	468	418	404			
65	358	322	335	376	363	385	345	369	349	338	346	385	358	364	332	332			
70	300	266	264	290	292	294	271	300	294	274	271	298	291	283	262	274			
75	230	207	199	218	220	219	204	232	220	212	205	224	222	215	197	213			
80	170	155	143	147	145	147	145	169	164	155	146	152	150	147	141	158			
85	118	109	95.0	80.0	65.3	81.6	97.7	118	112	111	97.8	83.8	73.0	82.7	95.1	108			
90	78.6	70.7	66.1	38.9	6.54	40.4	69.1	79.6	81.7	75.0	66.7	39.9	7.02	37.1	64.3	69.2			
95	83.9	73.0	71.1	34.0	7.13	34.0	71.3	80.4	92.3	76.6	70.4	32.7	7.19	33.2	66.5	72.4			
100	91.5	83.4	59.6	24.6	7.88	24.2	62.5	94.6	101	91.3	55.6	24.1	8.03	25.0	56.7	79.5			
105	83.7	70.9	54.5	25.1	9.02	26.6	51.7	76.5	79.6	72.0	54.6	25.4	8.95	24.6	54.2	71.0			
110	68.5	60.5	43.8	23.0	10.1	22.7	42.5	63.9	65.4	58.5	41.4	22.7	9.91	22.2	42.8	61.2			
115	57.0	51.3	36.1	22.4	10.4	23.0	38.1	53.8	53.7	50.4	38.5	22.9	10.8	21.6	37.5	51.4			
120	47.5	44.3	30.6	21.1	11.1	21.9	34.5	46.0	45.1	43.8	35.2	22.5	11.7	20.7	30.9	45.0			
125	44.8	41.9	26.5	20.1	12.2	21.3	31.9	42.1	41.5	40.1	32.7	21.8	12.8	20.0	26.2	42.5			
130	42.5	39.0	24.8	19.0	13.0	20.5	30.3	38.8	38.8	37.3	31.1	21.0	13.8	19.2	24.7	39.1			
135	40.3	34.3	23.8	17.8	13.9	19.6	29.6	35.5	36.0	34.3	29.7	19.9	14.8	18.2	24.4	34.4			
140	37.0	29.6	23.3	15.3	14.8	18.4	28.5	33.1	33.0	32.1	28.8	18.8	15.7	17.6	23.7	28.3			
145	34.6	26.7	21.8	15.5	15.8	17.5	26.8	29.8	31.4	28.6	26.6	18.0	16.7	16.2	22.4	25.5			
150	32.0	25.3	20.5	16.3	16.0	17.2	23.9	28.8	28.2	27.5	23.4	17.7	17.7	17.0	20.9	24.5			
155	29.1	23.7	19.9	17.5	17.5	17.2	21.3	25.9	26.1	24.7	21.0	18.0	18.5	18.2	20.2	23.1			
160	25.5	22.1	19.9	18.7	18.9	18.2	20.0	22.8	23.2	21.9	19.9	18.6	19.7	19.4	20.3	21.8			
165	22.8	21.3	20.5	20.2	20.2	19.7	19.9	20.9	21.5	20.4	19.9	20.1	20.9	20.7	20.8	21.2			
170	22.2	21.8	21.4	21.4	21.4	21.1	20.5	20.7	21.9	20.7	20.7	21.4	21.8	21.8	21.6	21.7			
175	23.3	22.9	22.4	22.3	22.2	22.2	22.0	22.1	23.4	22.2	22.1	22.3	22.5	22.6	22.6	22.8			
180	24.2	23.4	22.8	22.8	22.8	22.9	22.9	23.2	24.2	23.3	22.9	22.7	22.8	22.8	22.9	23.2			

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: