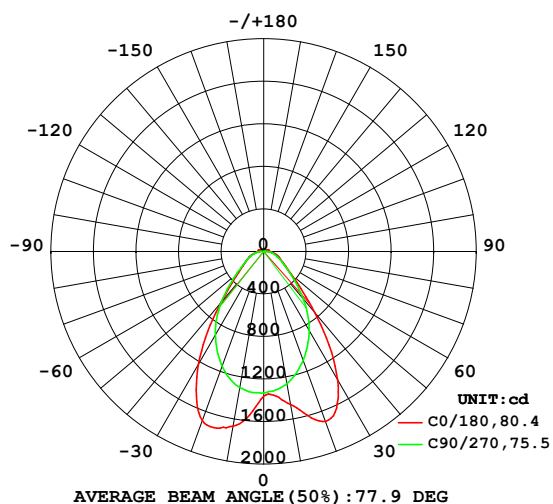


LUMINAIRE PHOTOMETRIC TEST REPORT

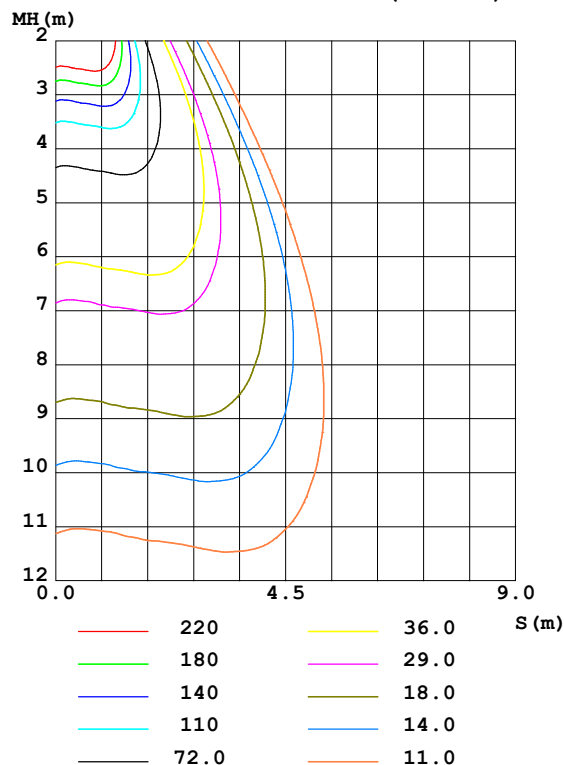
Test:U:222.92V I:0.0842A P:17.755W PF:0.9460 Freq:50.02Hz Lamp Flux:2852.63x1 lm		
NAME: LED Linear Lighting System	TYPE:	WEIGHT:2kg
SPEC.:	DIM.: 600*60*45mm	SERIAL No.:
MFR.: CoreShine	SUR.:600*60mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 160.67 lm/W			
MODEL	CTLS-0618-40DS-04WH	I _{max} (cd)	1724	S/MH (C0/180)	1.12
NOMINAL POWER (W)	18	LOR (%)	100.0	S/MH (C90/270)	1.06
RATED VOLTAGE (V)	230.0	TOTAL FLUX (lm)	2852.6	η UP, DN (C0-180)	1.9, 47.5
NOMINAL FLUX (lm)	2852.63	CIE CLASS	DIRECT	η UP, DN (C180-360)	1.9, 48.7
LAMPS INSIDE	1	η up (%)	3.8	CIBSE SHR NOM	1.00
TEST VOLTAGE (V)	230.0	η down (%)	96.2	CIBSE SHR MAX	1.05

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:

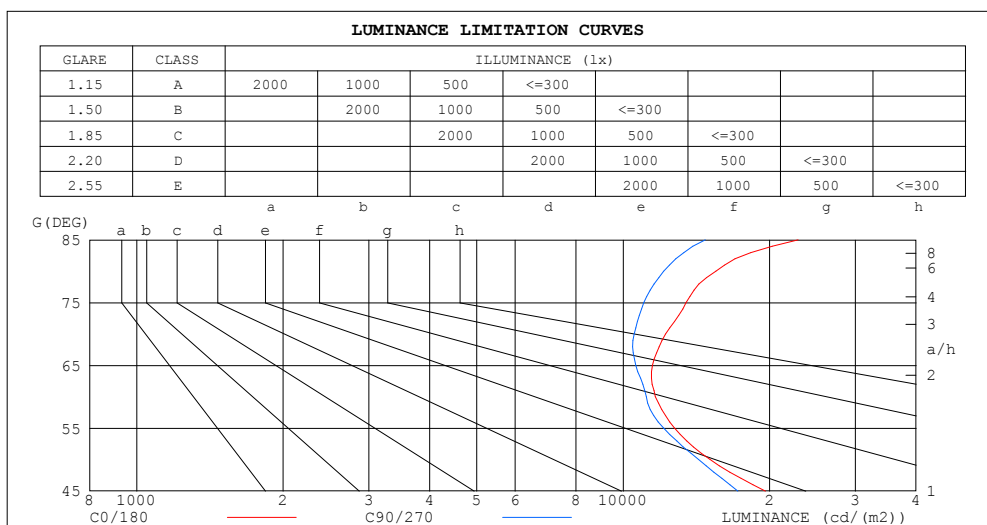
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	1461	1373	1262	1516	1669	1574	1299	1372	0- 10	134.3	134.3	4.71,4.71
20	1701	1418	1089	1538	1689	1617	1148	1446	10- 20	415.1	549.3	19.3,19.3
30	1394	1273	858.9	1291	1228	1360	909.6	1381	20- 30	627.8	1177	41.3,41.3
40	746.9	752.2	577.4	725.5	625.9	775.7	620.0	852.4	30- 40	600.2	1777	62.3,62.3
50	348.9	361.2	330.8	342.5	313.6	367.4	341.5	388.5	40- 50	396.9	2174	76.2,76.2
60	209.7	197.4	200.9	187.0	196.6	197.4	200.8	207.5	50- 60	240.4	2415	84.6,84.6
70	150.4	123.7	129.7	117.2	141.9	121.1	130.0	127.5	60- 70	161.8	2576	90.3,90.3
80	96.97	73.30	75.67	67.27	82.24	69.21	74.11	74.31	70- 80	109.2	2686	94.1,94.1
90	49.21	36.15	16.50	31.69	44.99	31.91	14.42	36.08	80- 90	58.98	2745	96.2,96.2
100	35.94	30.63	1.342	25.15	39.82	24.99	1.264	28.27	90-100	27.96	2772	97.2,97.2
110	37.57	21.96	2.048	20.15	34.36	19.87	1.855	22.24	100-110	24.91	2797	98.1,98.1
120	26.68	17.78	2.996	16.03	24.19	16.03	2.678	17.21	110-120	17.86	2815	98.7,98.7
130	22.95	15.59	4.068	13.81	20.51	13.37	3.651	13.87	120-130	13.20	2828	99.2,99.2
140	19.37	13.63	5.136	12.64	17.23	12.24	4.677	13.07	130-140	10.12	2839	99.5,99.5
150	15.55	10.66	6.035	10.24	13.33	9.739	5.625	9.976	140-150	6.970	2846	99.8,99.8
160	11.67	7.945	6.716	7.741	9.738	7.347	6.381	7.568	150-160	4.227	2850	99.9,99.9
170	8.012	7.388	7.211	7.157	7.681	7.050	7.017	7.100	160-170	2.143	2852	100,100
180	7.981	7.615	7.469	7.565	7.981	7.631	7.469	7.565	170-180	0.7058	2853	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:222.92V I:0.0842A P:17.755W PF:0.9460 Freq:50.02Hz Lamp Flux:2852.63x1 lm		
NAME: LED Linear Lighting System	TYPE:	WEIGHT:2kg
SPEC.:	DIM.: 600*60*45mm	SERIAL No.:
MFR.: CoreShine	SUR.:600*60mm	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	22870	14756
80	15512	12104
75	13468	11026
70	12218	10537
65	11481	10619
60	11651	11162
55	12759	12105
50	15077	14297
45	19609	17222

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:222.92V I:0.0842A P:17.755W PF:0.9460 Freq:50.02Hz Lamp Flux:2852.63x1 lm		
NAME: LED Linear Lighting System	TYPE:	WEIGHT:2kg
SPEC.:	DIM.: 600*60*45mm	SERIAL No.:
MFR.: CoreShine	SUR.:600*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	.264	.150	.048	.256	.146	.046	.240	.138	.044	.227	.131	.042	.214	.124	.040		
2.0	.245	.134	.041	.238	.131	.040	.225	.125	.039	.213	.119	.037	.201	.114	.036		
3.0	.228	.121	.036	.222	.119	.036	.210	.114	.035	.199	.109	.033	.189	.105	.032		
4.0	.212	.110	.032	.207	.108	.032	.196	.104	.031	.187	.100	.030	.178	.097	.029		
5.0	.198	.101	.029	.193	.099	.029	.184	.096	.028	.175	.093	.028	.167	.089	.027		
6.0	.186	.093	.027	.181	.092	.026	.173	.089	.026	.165	.086	.025	.158	.083	.025		
7.0	.174	.086	.024	.171	.085	.024	.163	.082	.024	.156	.080	.023	.149	.078	.023		
8.0	.164	.080	.023	.161	.079	.022	.154	.077	.022	.148	.075	.022	.142	.073	.021		
9.0	.155	.075	.021	.152	.074	.021	.146	.072	.020	.140	.070	.020	.135	.068	.020		
10.0	.147	.071	.020	.144	.070	.019	.139	.068	.019	.133	.066	.019	.128	.065	.019		

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	.219	.219	.219	.187	.187	.187	.128	.128	.128	.074	.074	.074	.024	.024	.024	
1.0	.206	.186	.167	.176	.159	.144	.121	.110	.099	.069	.063	.058	.022	.020	.019	
2.0	.195	.161	.133	.167	.139	.115	.115	.096	.080	.066	.056	.047	.021	.018	.015	
3.0	.186	.143	.110	.159	.124	.095	.109	.086	.067	.063	.050	.039	.020	.016	.013	
4.0	.177	.130	.093	.152	.112	.081	.105	.078	.057	.061	.046	.034	.019	.015	.011	
5.0	.170	.119	.082	.146	.103	.071	.100	.072	.050	.058	.042	.030	.019	.014	.010	
6.0	.163	.110	.073	.140	.096	.064	.096	.067	.045	.056	.039	.027	.018	.013	.009	
7.0	.156	.103	.066	.134	.090	.058	.093	.063	.041	.054	.037	.024	.017	.012	.008	
8.0	.150	.097	.061	.129	.085	.053	.089	.059	.038	.052	.035	.023	.017	.011	.007	
9.0	.145	.093	.057	.125	.080	.050	.086	.056	.036	.050	.033	.021	.016	.011	.007	
10.0	.139	.088	.054	.120	.077	.047	.083	.054	.034	.049	.032	.020	.016	.010	.007	

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:222.92V I:0.0842A P:17.755W PF:0.9460 Freq:50.02Hz Lamp Flux:2852.63x1 lm										
NAME: LED Linear Lighting System					TYPE:			WEIGHT:2kg		
SPEC.:					DIM.: 600*60*45mm			SERIAL No.:		
MFR.: CoreShine					SUR.: 600*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	17.0	18.2	17.3	18.5	18.7	16.6	17.9	16.9	18.1	18.4
3H	18.0	19.2	18.3	19.4	19.7	17.6	18.8	18.0	19.1	19.4
4H	18.7	19.8	19.0	20.1	20.4	18.2	19.3	18.5	19.6	19.9
6H	19.4	20.4	19.8	20.8	21.1	18.8	19.8	19.1	20.1	20.5
8H	19.8	20.8	20.2	21.1	21.5	19.0	20.0	19.4	20.4	20.7
12H	20.2	21.2	20.6	21.6	21.9	19.3	20.2	19.7	20.6	21.0
4H 2H	17.2	18.3	17.5	18.6	18.9	16.9	18.0	17.3	18.3	18.6
3H	18.5	19.4	18.9	19.8	20.2	18.2	19.1	18.6	19.5	19.8
4H	19.3	20.2	19.8	20.6	21.0	18.9	19.8	19.3	20.2	20.6
6H	20.3	21.0	20.7	21.5	21.9	19.7	20.4	20.1	20.9	21.3
8H	20.8	21.5	21.2	21.9	22.4	20.1	20.8	20.5	21.2	21.7
12H	21.4	22.0	21.8	22.5	22.9	20.4	21.1	20.9	21.5	22.0
8H 4H	19.6	20.3	20.0	20.7	21.2	19.2	19.9	19.6	20.3	20.8
6H	20.7	21.3	21.2	21.8	22.3	20.2	20.8	20.7	21.2	21.7
8H	21.4	21.9	21.9	22.4	22.9	20.7	21.2	21.2	21.7	22.2
12H	22.1	22.6	22.7	23.1	23.7	21.2	21.7	21.7	22.2	22.7
12H 4H	19.6	20.2	20.1	20.7	21.2	19.2	19.9	19.7	20.3	20.8
6H	20.8	21.3	21.3	21.8	22.3	20.3	20.8	20.8	21.3	21.8
8H	21.5	22.0	22.1	22.5	23.0	20.9	21.3	21.4	21.8	22.4
Variations with the observer position at spacings:										
S = 1.0H	+ 0.4 / - 0.4					+ 0.4 / - 0.4				
1.5H	+ 0.5 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.5 / - 0.3					+ 0.5 / - 0.4				

CIE Pub.117, 2853 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 3.6$)

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:

UTILIZATION FACTORS TABLE

Test:U:222.92V I:0.0842A P:17.755W PF:0.9460 Freq:50.02Hz Lamp Flux:2852.63x1 lm		
NAME: LED Linear Lighting System	TYPE:	WEIGHT:2kg
SPEC.:	DIM.: 600*60*45mm	SERIAL No.:
MFR.: CoreShine	SUR.:600*60mm	Shielding Angle:

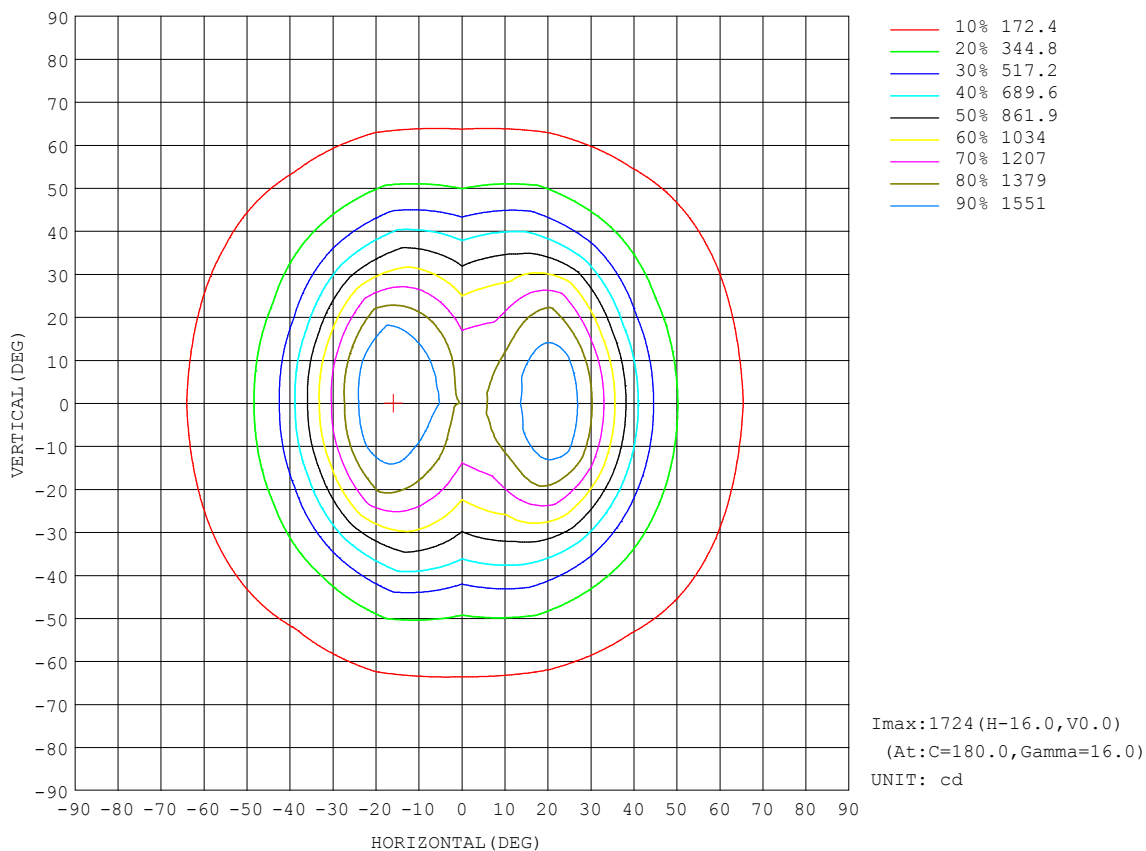
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	68	59	53	67	58	53	66	58	53	47
0.80	77	68	62	76	67	62	74	67	61	55
1.00	84	75	69	83	75	69	81	75	68	62
1.25	90	81	76	88	81	75	86	79	74	68
1.50	94	86	80	92	85	80	89	83	79	72
2.00	99	92	87	97	91	86	94	88	84	77
2.50	102	96	91	100	94	90	96	91	87	79
3.00	105	99	94	102	97	93	98	94	90	82
4.00	108	103	99	105	101	98	101	97	94	85
5.00	110	106	102	107	103	100	102	99	97	87
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:222.92V I:0.0842A P:17.755W PF:0.9460 Freq:50.02Hz Lamp Flux:2852.63x1 lm		
NAME: LED Linear Lighting System	TYPE:	WEIGHT:2kg
SPEC.:	DIM.: 600*60*45mm	SERIAL No.:
MFR.: CoreShine	SUR.:600*60mm	Shielding Angle:

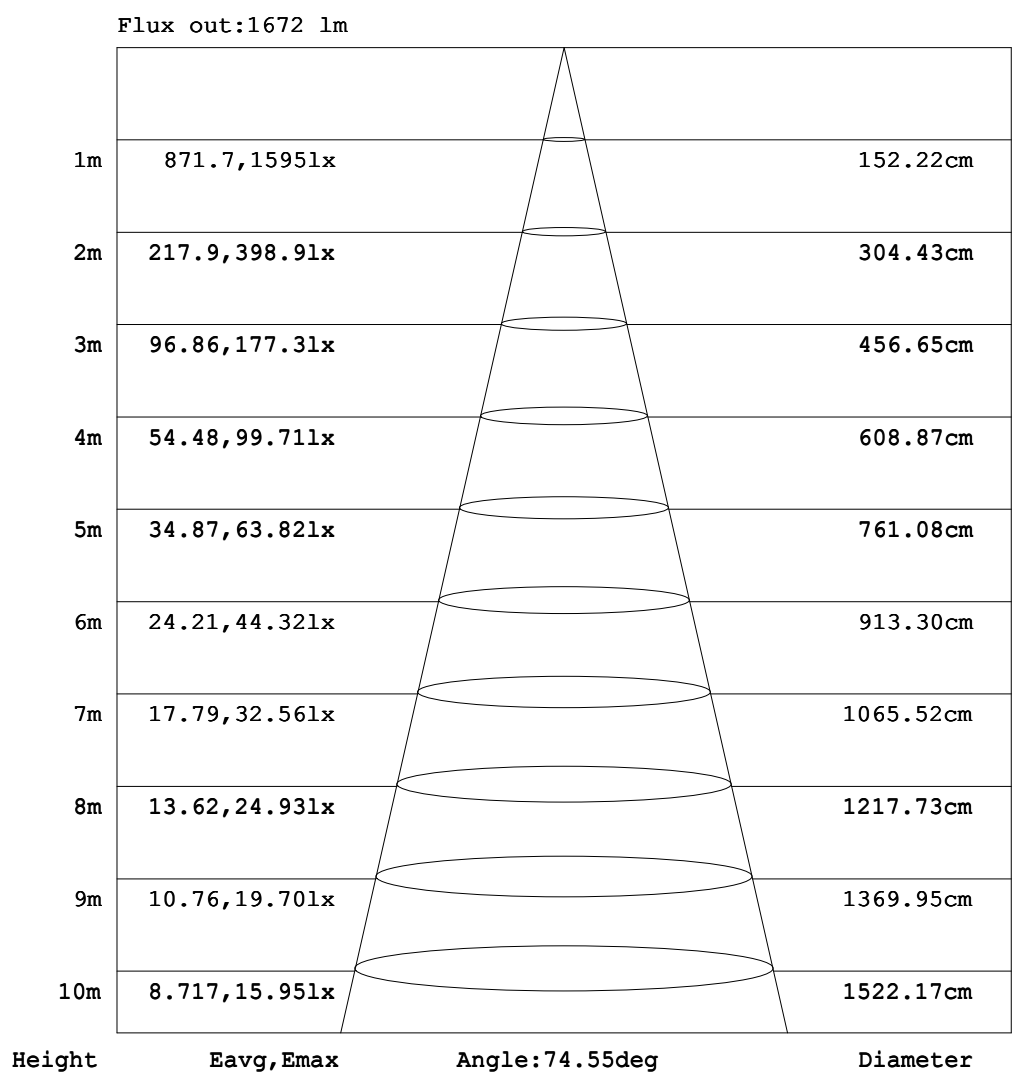


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:zcx
Test Date:2020-07-03

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:222.92V I:0.0842A P:17.755W PF:0.9460 Freq:50.02Hz Lamp Flux:2852.63x1 lm		
NAME: LED Linear Lighting System	TYPE:	WEIGHT:2kg
SPEC.:	DIM.: 600*60*45mm	SERIAL No.:
MFR.: CoreShine	SUR.:600*60mm	Shielding Angle:

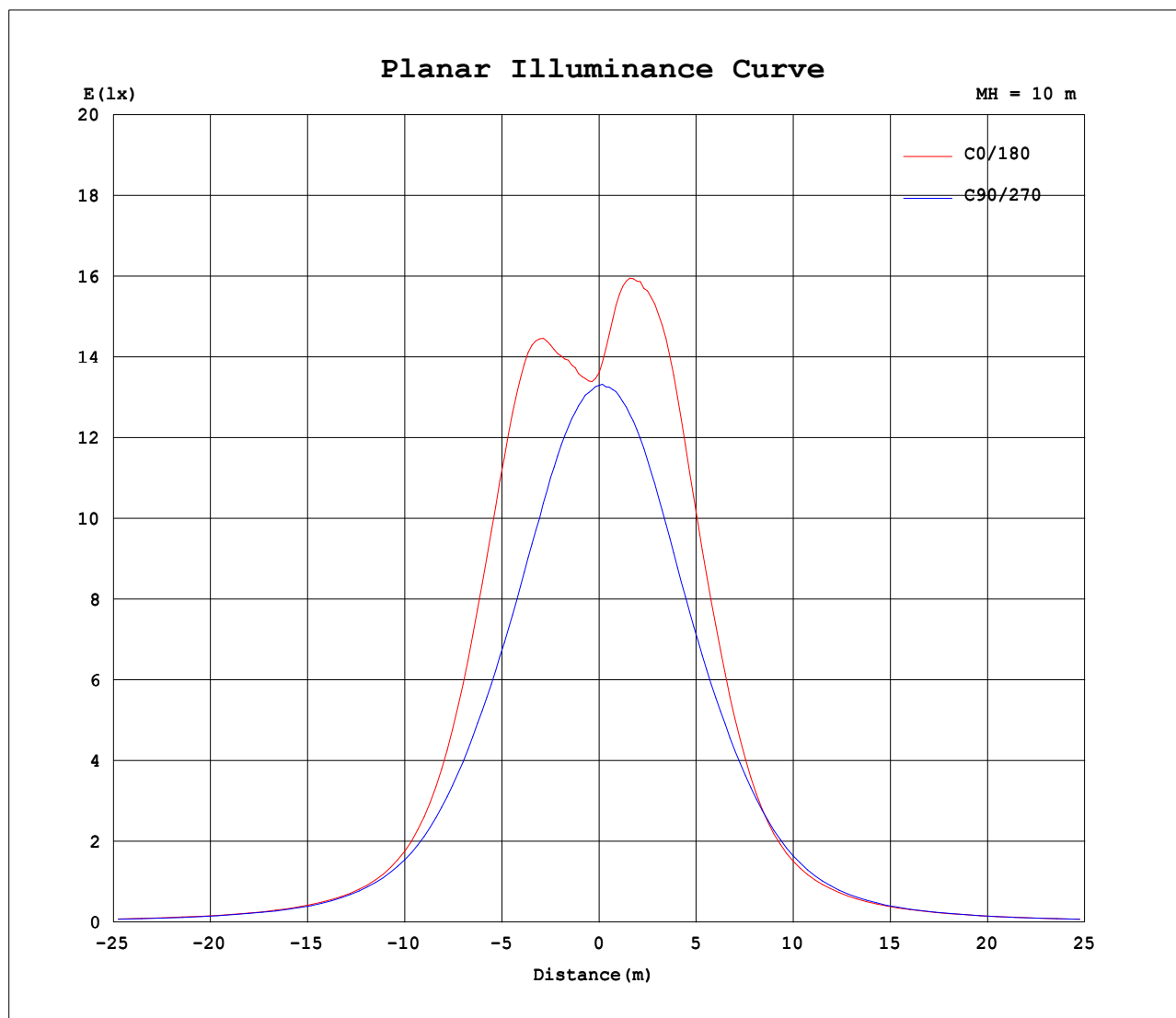


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:222.92V I:0.0842A P:17.755W PF:0.9460 Freq:50.02Hz Lamp Flux:2852.63x1 lm		
NAME: LED Linear Lighting System	TYPE:	WEIGHT:2kg
SPEC.:	DIM.: 600*60*45mm	SERIAL No.:
MFR.: CoreShine	SUR.:600*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	1361	1368	1350	1339	1330	1328	1335	1340	1361	1368	1350	1339	1330	1328	1335	1340			
5	1367	1365	1334	1304	1307	1356	1428	1485	1545	1526	1466	1389	1329	1311	1332	1360			
10	1461	1442	1373	1280	1262	1380	1516	1600	1669	1648	1574	1441	1299	1299	1372	1444			
15	1597	1542	1403	1244	1186	1369	1541	1647	1719	1700	1619	1450	1238	1268	1404	1552			
20	1701	1656	1418	1180	1089	1311	1538	1654	1689	1698	1617	1403	1148	1211	1446	1662			
25	1625	1619	1402	1094	976	1215	1471	1519	1498	1554	1551	1303	1033	1134	1470	1615			
30	1394	1408	1273	980	859	1087	1291	1247	1228	1277	1360	1160	910	1038	1381	1398			
35	1073	1086	1025	837	723	927	1005	935	918	966	1070	989	773	918	1153	1082			
40	747	755	752	681	577	744	725	645	626	664	776	794	620	763	852	753			
45	499	506	524	519	438	556	499	438	428	445	536	592	465	583	581	501			
50	349	351	361	379	331	400	342	313	314	315	367	419	342	417	389	344			
55	263	258	260	278	250	289	247	239	242	241	263	300	256	300	277	254			
60	210	201	197	210	201	214	187	190	197	191	197	223	201	222	208	203			
65	175	162	154	163	162	166	147	157	166	158	154	170	162	169	160	165			
70	150	132	124	129	130	129	117	130	142	129	121	132	130	131	128	136			
75	125	107	97.5	102	103	100	90.7	102	110	102	93.5	102	102	101	99.6	111			
80	97.0	84.6	73.3	76.4	75.7	73.5	67.3	77.3	82.2	76.8	69.2	73.8	74.1	74.8	74.3	87.1			
85	71.8	63.1	53.0	49.6	46.3	46.7	47.0	58.7	63.4	57.9	48.1	45.9	44.5	47.8	53.4	64.2			
90	49.2	44.4	36.1	25.5	16.5	22.6	31.7	39.0	45.0	37.8	31.9	21.3	14.4	24.6	36.1	44.1			
95	36.6	30.9	31.7	20.5	1.21	18.5	31.5	32.6	41.6	32.4	30.2	15.9	1.32	17.7	29.9	29.9			
100	35.9	31.2	30.6	14.1	1.34	13.6	25.2	32.5	39.8	31.7	25.0	11.7	1.26	12.8	28.3	29.2			
105	43.2	38.5	24.2	9.56	1.66	9.40	26.8	43.0	51.3	41.1	24.9	8.68	1.52	9.05	23.7	37.0			
110	37.6	32.7	22.0	11.2	2.05	9.69	20.2	30.5	34.4	30.1	19.9	9.57	1.85	11.1	22.2	32.5			
115	32.3	28.8	19.7	10.1	2.50	8.79	17.5	26.4	29.1	25.5	17.1	8.38	2.25	9.39	19.7	28.6			
120	26.7	24.5	17.8	9.80	3.00	8.64	16.0	22.5	24.2	22.1	16.0	8.31	2.68	9.33	17.2	24.1			
125	23.9	22.3	16.6	9.49	3.52	8.46	14.7	20.4	21.9	20.2	14.6	7.97	3.16	9.39	15.7	22.1			
130	22.9	21.3	15.6	9.17	4.07	8.18	13.8	19.0	20.5	18.8	13.4	7.58	3.65	9.03	13.9	21.1			
135	21.5	19.9	14.9	8.45	4.61	7.83	13.6	17.4	19.1	17.1	13.1	7.16	4.17	8.34	14.3	19.6			
140	19.4	18.0	13.6	7.57	5.14	7.25	12.6	15.7	17.2	15.3	12.2	6.62	4.68	7.41	13.1	17.2			
145	17.4	16.8	12.5	6.98	5.61	6.84	11.8	13.8	15.6	13.2	11.3	6.30	5.16	6.71	11.7	15.4			
150	15.6	15.1	10.7	6.74	6.03	6.63	10.2	13.0	13.3	12.6	9.74	6.17	5.62	6.41	9.98	13.6			
155	14.3	12.6	8.96	6.76	6.40	6.62	8.72	11.3	11.9	10.8	8.24	6.18	6.00	6.38	8.38	11.5			
160	11.7	9.99	7.94	6.87	6.72	6.72	7.74	9.26	9.74	8.81	7.35	6.36	6.38	6.49	7.57	9.35			
165	9.29	8.31	7.48	6.99	6.98	6.90	7.23	7.85	8.20	7.60	6.93	6.58	6.70	6.68	7.20	8.01			
170	8.01	7.61	7.39	7.25	7.21	7.16	7.16	7.29	7.68	7.22	7.05	6.94	7.02	7.02	7.10	7.47			
175	7.67	7.62	7.51	7.46	7.38	7.38	7.37	7.45	7.82	7.48	7.37	7.28	7.29	7.31	7.42	7.51			
180	7.98	7.77	7.61	7.52	7.47	7.50	7.56	7.68	7.98	7.76	7.63	7.51	7.47	7.49	7.56	7.69			

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: