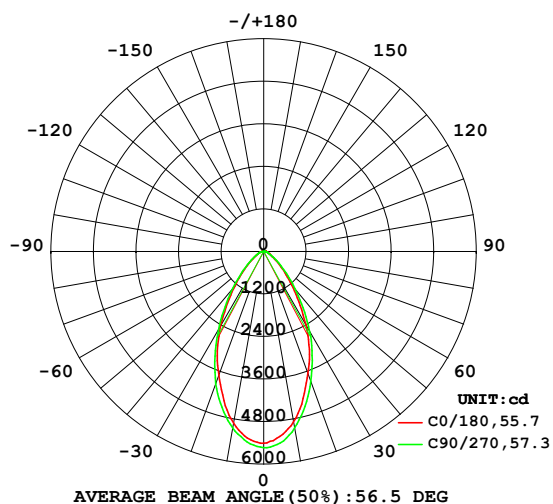


LUMINAIRE PHOTOMETRIC TEST REPORT

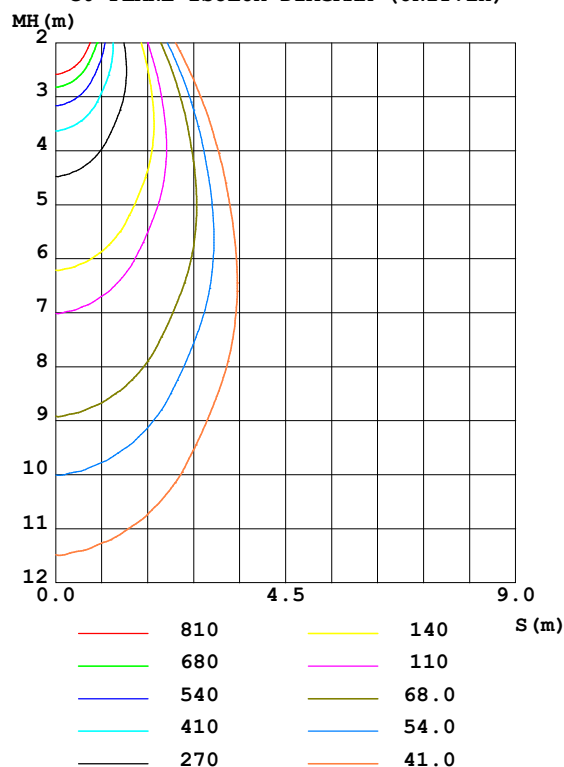
Test:U:220.84V I:0.1658A P:34.956W PF:0.9549 Freq:49.98Hz Lamp Flux:5950.73x1 lm		
NAME: LED Linear Lighting System	TYPE:	WEIGHT:2kg
SPEC.:	DIM.: 1500*60*45mm	SERIAL No.:
MFR.: CoreShine	SUR.:1500*60mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 170.24 lm/W			
MODEL	CTLS-1535-40NR-04WH	I _{max} (cd)	5547	S/MH (C0/180)	0.83
NOMINAL POWER (W)	35	LOR (%)	100.0	S/MH (C90/270)	0.85
RATED VOLTAGE (V)	230.0	TOTAL FLUX (lm)	5950.7	η UP, DN (C0-180)	1.2, 49.3
NOMINAL FLUX (lm)	5950.73	CIE CLASS	DIRECT	η UP, DN (C180-360)	1.2, 48.3
LAMPS INSIDE	1	η up (%)	2.3	CIBSE SHR NOM	0.75
TEST VOLTAGE (V)	230.0	η down (%)	97.7	CIBSE SHR MAX	0.90

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: 2020-06-18

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:

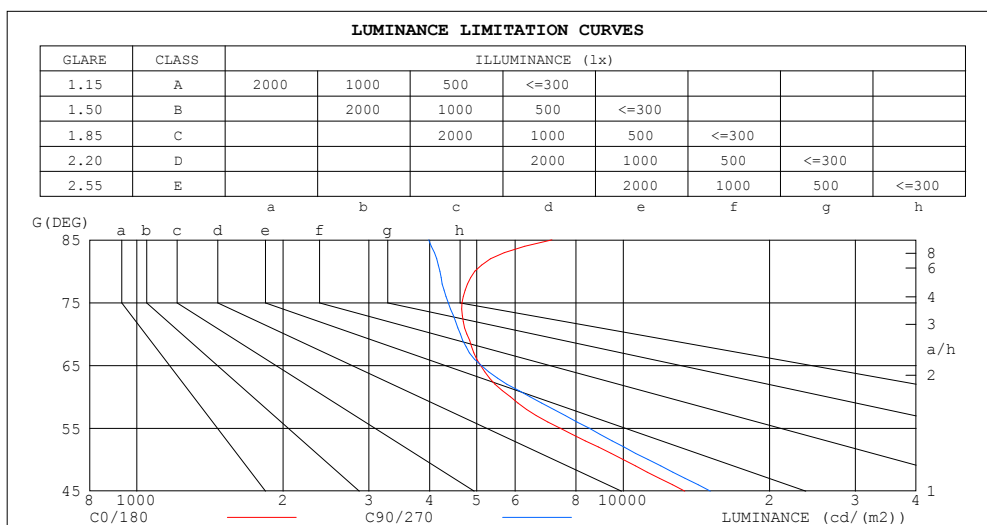
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	4875	4861	5048	5140	4919	4991	5053	4881	0- 10	496.9	496.9	8.35,8.35
20	3656	3690	3898	3982	3707	3867	3967	3653	10- 20	1234	1731	29.1,29.1
30	2382	2419	2597	2616	2439	2550	2558	2337	20- 30	1438	3169	53.3,53.3
40	1231	1306	1389	1419	1263	1386	1349	1244	30- 40	1163	4333	72.8,72.8
50	578.2	617.3	650.9	661.0	594.1	645.6	626.8	593.7	40- 50	715.4	5048	84.8,84.8
60	263.6	287.6	289.2	298.5	272.6	297.9	288.5	279.6	50- 60	382.1	5430	91.3,91.3
70	146.9	154.4	142.5	158.8	150.8	162.9	150.8	157.0	60- 70	207.4	5638	94.7,94.7
80	77.38	79.46	65.61	82.81	79.53	85.41	73.11	81.65	70- 80	120.2	5758	96.8,96.8
90	45.55	29.67	4.155	29.56	40.98	29.25	4.551	29.56	80- 90	53.28	5811	97.7,97.7
100	45.27	30.26	7.168	29.05	41.11	28.70	5.472	29.02	90-100	29.08	5840	98.1,98.1
110	37.34	27.64	8.294	26.41	35.26	26.45	7.343	26.95	100-110	28.42	5869	98.6,98.6
120	28.91	19.95	9.759	21.39	26.72	21.28	9.508	18.47	110-120	21.49	5890	99,99
130	27.33	18.19	11.26	20.50	25.18	20.61	11.53	17.15	120-130	17.32	5907	99.3,99.3
140	25.62	17.78	13.80	19.87	24.06	20.01	14.00	17.00	130-140	14.68	5922	99.5,99.5
150	23.05	18.31	16.57	19.26	21.87	19.19	16.68	17.63	140-150	11.77	5934	99.7,99.7
160	22.05	19.72	19.34	19.78	21.39	19.63	19.19	19.38	150-160	8.915	5943	99.9,99.9
170	22.76	21.65	21.81	21.46	22.38	21.33	21.78	21.56	160-170	5.872	5949	100,100
180	24.05	22.97	23.11	23.06	24.10	23.00	23.15	23.07	170-180	2.136	5951	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:2020-06-18

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:220.84V I:0.1658A P:34.956W PF:0.9549 Freq:49.98Hz Lamp Flux:5950.73x1 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	7140	3986
80	4951	4198
75	4665	4370
70	4774	4629
65	5095	5104
60	5858	6426
55	7414	8511
50	9994	11250
45	13388	15100

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:zcx
Test Date:2020-06-18

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:220.84V I:0.1658A P:34.956W PF:0.9549 Freq:49.98Hz Lamp Flux:5950.73x1 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	.224	.127	.040	.216	.123	.039	.202	.116	.037	.189	.109	.035	.177	.103	.033		
2.0	.212	.116	.036	.206	.113	.035	.193	.108	.033	.182	.102	.032	.172	.097	.031		
3.0	.200	.106	.032	.194	.104	.031	.183	.099	.030	.173	.095	.029	.164	.091	.028		
4.0	.188	.098	.029	.183	.096	.028	.173	.092	.027	.165	.088	.027	.157	.085	.026		
5.0	.177	.090	.026	.172	.088	.026	.164	.085	.025	.156	.082	.025	.149	.080	.024		
6.0	.167	.084	.024	.163	.082	.024	.155	.080	.023	.148	.077	.023	.142	.075	.022		
7.0	.158	.078	.022	.154	.077	.022	.147	.075	.021	.141	.072	.021	.135	.070	.021		
8.0	.149	.073	.021	.146	.072	.020	.140	.070	.020	.135	.068	.020	.129	.066	.019		
9.0	.142	.069	.019	.139	.068	.019	.134	.066	.019	.128	.064	.018	.124	.063	.018		
10.0	.135	.065	.018	.132	.064	.018	.127	.062	.018	.123	.061	.017	.118	.060	.017		

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	.208	.208	.208	.178	.178	.178	.122	.122	.122	.070	.070	.070	.022	.022	.022		
1.0	.192	.175	.159	.165	.150	.137	.113	.103	.095	.065	.060	.055	.021	.019	.018		
2.0	.180	.150	.126	.154	.130	.109	.106	.090	.076	.061	.052	.044	.020	.017	.014		
3.0	.169	.132	.103	.145	.114	.089	.100	.079	.062	.058	.046	.037	.018	.015	.012		
4.0	.160	.118	.086	.137	.102	.075	.094	.071	.052	.055	.042	.031	.018	.014	.010		
5.0	.152	.107	.074	.131	.092	.064	.090	.065	.045	.052	.038	.027	.017	.012	.009		
6.0	.145	.098	.064	.124	.085	.056	.086	.059	.040	.050	.035	.024	.016	.011	.008		
7.0	.138	.091	.057	.119	.079	.050	.082	.055	.035	.048	.032	.021	.015	.011	.007		
8.0	.132	.085	.052	.114	.073	.045	.079	.052	.032	.046	.030	.019	.015	.010	.006		
9.0	.127	.080	.048	.110	.069	.041	.076	.049	.029	.044	.029	.018	.014	.009	.006		
10.0	.122	.075	.044	.105	.065	.039	.073	.046	.027	.043	.027	.016	.014	.009	.005		

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:zcx
 Test Date:2020-06-18

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:220.84V I:0.1658A P:34.956W PF:0.9549 Freq:49.98Hz Lamp Flux:5950.73x1 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	11.8	13.0	12.1	13.2	13.4	12.4	13.5	12.7	13.7	14.0
3H	12.3	13.3	12.6	13.6	13.8	12.8	13.8	13.1	14.1	14.3
4H	12.5	13.5	12.9	13.8	14.1	13.0	13.9	13.3	14.2	14.5
6H	12.8	13.7	13.1	14.0	14.3	13.1	14.0	13.5	14.3	14.6
8H	12.9	13.8	13.3	14.1	14.4	13.2	14.1	13.5	14.4	14.7
12H	13.1	14.0	13.5	14.3	14.6	13.2	14.1	13.6	14.4	14.7
4H 2H	12.0	12.9	12.3	13.2	13.5	12.5	13.4	12.8	13.7	14.0
3H	12.6	13.5	13.0	13.8	14.1	13.0	13.9	13.4	14.2	14.5
4H	13.0	13.8	13.4	14.1	14.5	13.3	14.1	13.7	14.5	14.8
6H	13.4	14.1	13.8	14.5	14.9	13.6	14.3	14.0	14.7	15.1
8H	13.6	14.3	14.1	14.7	15.1	13.7	14.4	14.2	14.8	15.2
12H	13.9	14.5	14.3	14.9	15.3	13.8	14.4	14.3	14.8	15.3
8H 4H	13.1	13.8	13.6	14.2	14.6	13.4	14.1	13.9	14.5	14.9
6H	13.7	14.2	14.2	14.7	15.1	13.9	14.4	14.3	14.8	15.3
8H	14.0	14.5	14.5	14.9	15.4	14.1	14.5	14.5	15.0	15.5
12H	14.4	14.8	14.9	15.3	15.8	14.2	14.6	14.7	15.1	15.6
12H 4H	13.1	13.7	13.6	14.1	14.6	13.4	14.0	13.9	14.4	14.9
6H	13.7	14.2	14.2	14.7	15.2	13.9	14.4	14.4	14.8	15.3
8H	14.1	14.5	14.6	15.0	15.5	14.2	14.5	14.7	15.0	15.6
Variations with the observer position at spacings:										
S = 1.0H	+ 0.7 / - 0.9					+ 0.8 / - 1.1				
1.5H	+ 0.9 / - 0.6					+ 1.1 / - 0.8				
2.0H	+ 1.4 / - 0.9					+ 1.7 / - 1.0				

CIE Pub.117, 5951 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 6.2$)

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:zcx
 Test Date:2020-06-18

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:220.84V I:0.1658A P:34.956W PF:0.9549 Freq:49.98Hz Lamp Flux:5950.73x1 lm		
NAME: LED Linear Lighting System	TYPE:	WEIGHT:2kg
SPEC.:	DIM.: 1500*60*45mm	SERIAL No.:
MFR.: CoreShine	SUR.:1500*60mm	Shielding Angle:

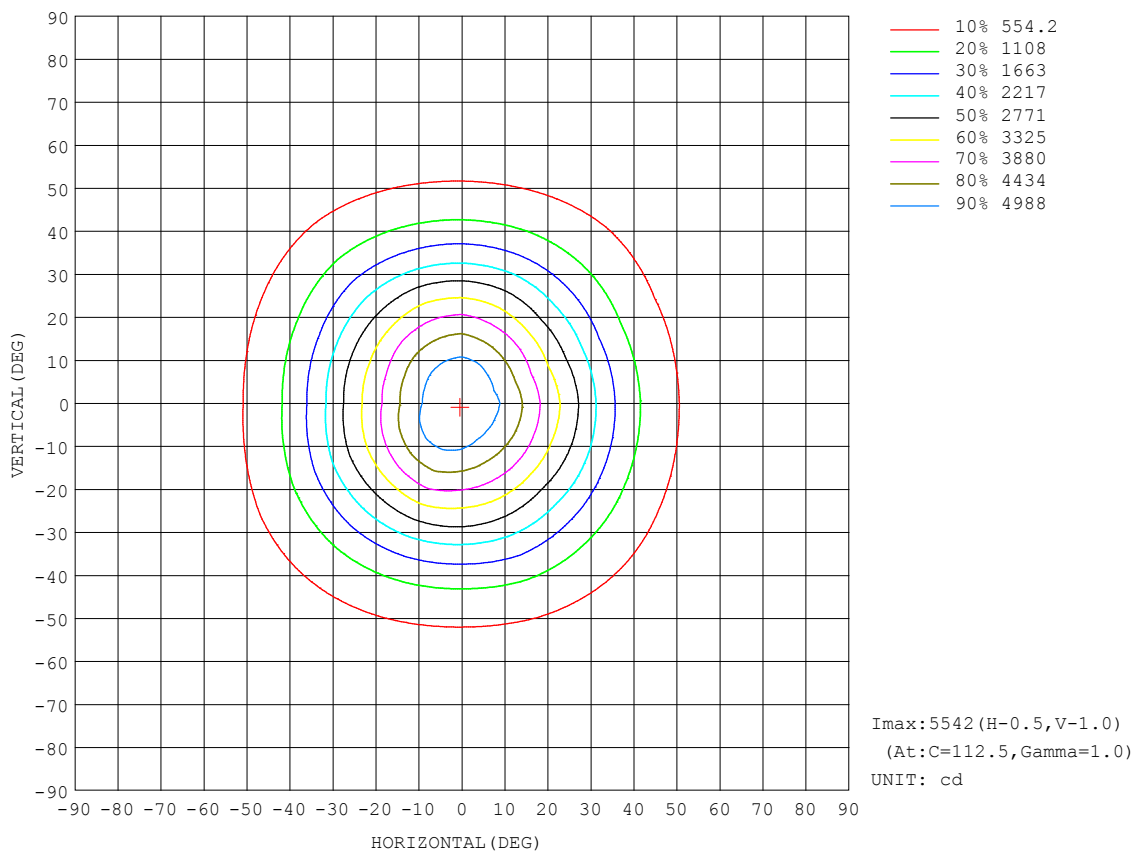
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	74	66	61	74	66	61	73	65	61	56
0.80	83	75	70	82	75	70	81	74	69	64
1.00	90	82	77	88	81	76	86	81	76	70
1.25	95	88	83	94	87	82	91	85	81	76
1.50	99	92	87	97	91	86	94	89	85	79
2.00	103	97	93	101	96	92	98	93	90	83
2.50	105	100	96	103	99	95	100	96	93	85
3.00	108	103	99	105	101	98	101	98	95	88
4.00	110	106	103	108	104	101	104	101	99	90
5.00	112	108	106	109	106	104	105	103	101	92
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:2020-06-18

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:220.84V I:0.1658A P:34.956W PF:0.9549 Freq:49.98Hz Lamp Flux:5950.73x1 lm		
NAME: LED Linear Lighting System	TYPE:	WEIGHT:2kg
SPEC.:	DIM.: 1500*60*45mm	SERIAL No.:
MFR.: CoreShine	SUR.:1500*60mm	Shielding Angle:

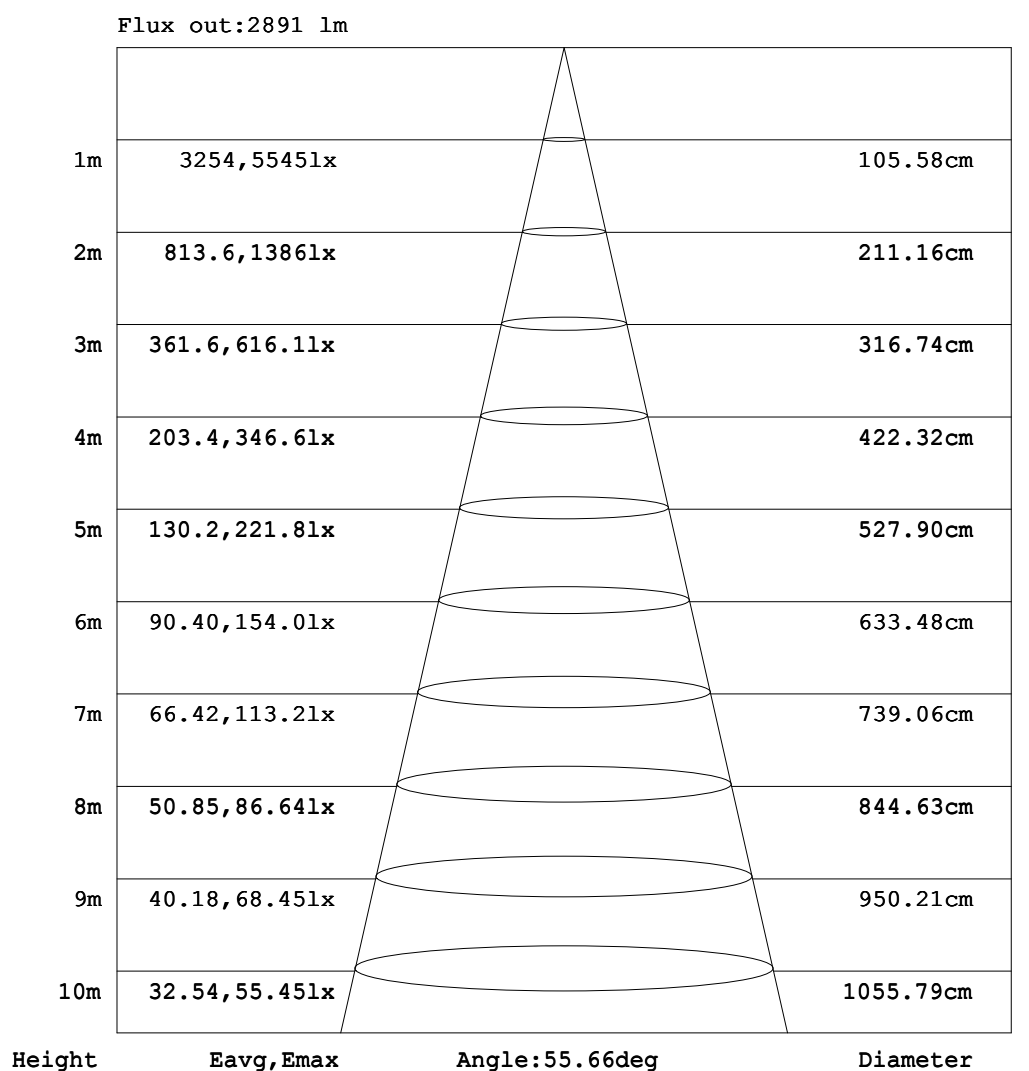


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:zcx
Test Date:2020-06-18

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:220.84V I:0.1658A P:34.956W PF:0.9549 Freq:49.98Hz Lamp Flux:5950.73x1 lm		
NAME: LED Linear Lighting System	TYPE:	WEIGHT:2kg
SPEC.:	DIM.: 1500*60*45mm	SERIAL No.:
MFR.: CoreShine	SUR.:1500*60mm	Shielding Angle:

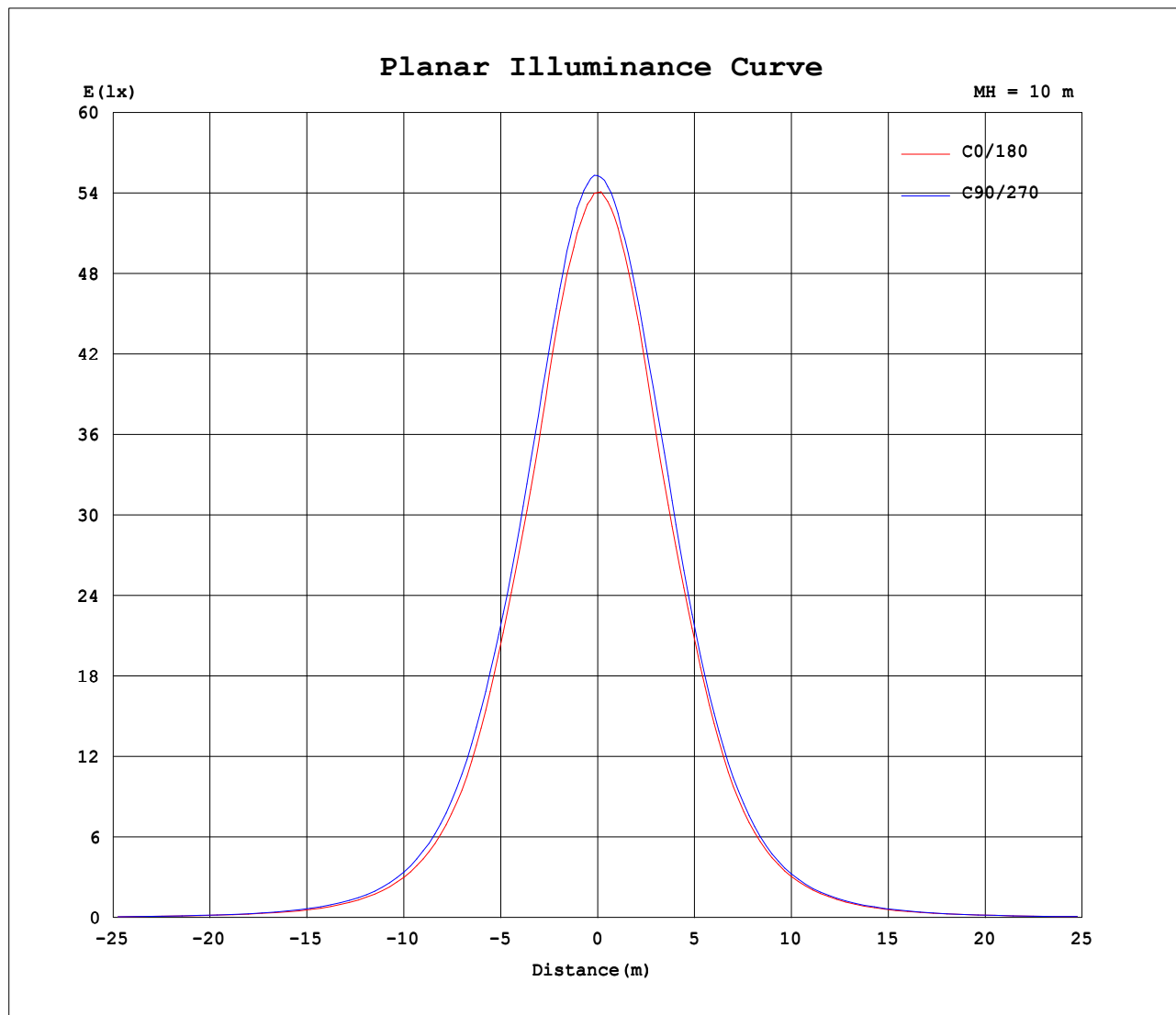


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:zcx
 Test Date:2020-06-18

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: 2020-06-18

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:220.84V I:0.1658A P:34.956W PF:0.9549 Freq:49.98Hz Lamp Flux:5950.73x1 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	5405	5387	5417	5462	5531	5530	5521	5443	5405	5387	5417	5462	5531	5530	5521	5443			
5	5238	5210	5236	5288	5418	5458	5444	5370	5283	5261	5322	5373	5395	5364	5290	5218			
10	4875	4861	4861	4911	5048	5150	5140	5043	4919	4934	4991	5034	5053	4984	4881	4812			
15	4293	4311	4333	4401	4523	4659	4631	4538	4356	4395	4494	4530	4558	4438	4315	4216			
20	3656	3642	3690	3794	3898	4049	3982	3856	3707	3728	3867	3933	3967	3803	3653	3525			
25	3054	3038	3027	3155	3237	3356	3278	3233	3099	3127	3182	3286	3257	3147	2970	2926			
30	2382	2407	2419	2530	2597	2648	2616	2594	2439	2476	2550	2590	2558	2489	2337	2286			
35	1731	1777	1823	1934	1948	1984	1980	1938	1782	1821	1930	1920	1902	1845	1745	1656			
40	1231	1258	1306	1410	1389	1416	1419	1381	1263	1290	1386	1362	1349	1305	1244	1168			
45	852	865	907	970	961	980	981	957	873	894	952	942	923	903	860	799			
50	578	585	617	654	651	661	661	650	594	608	646	640	627	616	594	544			
55	383	401	417	433	439	438	439	444	395	418	433	426	430	410	405	377			
60	264	268	288	290	289	294	299	297	273	286	298	291	288	281	280	257			
65	194	192	211	209	194	210	218	211	200	206	220	215	199	210	210	187			
70	147	147	154	152	142	153	159	161	151	158	163	159	151	156	157	146			
75	109	111	114	108	102	109	118	122	112	120	122	114	110	112	117	110			
80	77.4	78.2	79.5	70.7	65.6	71.2	82.8	86.2	79.5	84.1	85.4	75.5	73.1	73.5	81.7	77.3			
85	56.0	52.8	47.8	38.8	31.3	39.6	50.0	56.8	55.7	55.4	51.6	41.9	36.7	40.5	49.1	52.1			
90	45.5	40.6	29.7	13.0	4.16	12.7	29.6	39.8	41.0	38.7	29.2	13.3	4.55	13.1	29.6	40.2			
95	46.7	38.0	33.5	18.4	5.94	16.3	30.5	35.9	41.3	35.8	29.6	15.7	4.62	16.3	30.9	37.4			
100	45.3	39.8	30.3	16.9	7.17	15.7	29.1	37.7	41.1	37.9	28.7	15.2	5.47	15.4	29.0	39.1			
105	44.0	41.0	32.7	15.4	7.60	14.9	28.5	37.6	39.1	37.6	28.0	14.1	6.39	13.6	28.6	39.5			
110	37.3	35.2	27.6	15.8	8.29	15.8	26.4	35.1	35.3	34.5	26.5	15.0	7.34	14.4	27.0	34.5			
115	31.8	29.3	23.0	14.2	9.08	14.4	22.7	28.7	29.4	28.3	22.6	14.2	8.47	13.3	21.6	28.6			
120	28.9	27.3	19.9	13.7	9.76	14.1	21.4	26.1	26.7	25.8	21.3	14.1	9.51	13.1	18.5	26.5			
125	27.9	26.0	19.1	13.4	10.4	13.9	20.7	24.8	25.6	24.3	20.7	14.1	10.5	13.1	17.7	25.0			
130	27.3	25.5	18.2	13.5	11.3	14.1	20.5	24.1	25.2	23.7	20.6	14.4	11.5	13.4	17.1	24.7			
135	26.6	24.0	18.1	14.0	12.5	14.5	20.3	23.7	24.7	23.2	20.5	14.8	12.7	13.9	17.1	22.9			
140	25.6	21.7	17.8	14.7	13.8	15.0	19.9	23.2	24.1	22.7	20.0	15.3	14.0	14.6	17.0	20.3			
145	24.9	20.9	17.8	15.6	15.2	15.8	19.3	23.0	23.3	22.4	19.4	16.0	15.3	15.1	17.1	19.5			
150	23.0	20.0	18.3	16.4	16.6	16.7	19.3	21.4	21.9	20.9	19.2	16.9	16.7	16.1	17.6	18.7			
155	22.3	20.5	18.9	17.7	18.0	17.9	19.4	21.1	21.4	20.6	19.3	18.0	17.7	17.5	18.4	19.6			
160	22.0	20.9	19.7	19.1	19.3	19.1	19.8	21.0	21.4	20.4	19.6	19.1	19.2	19.0	19.4	20.2			
165	22.2	21.4	20.6	20.5	20.7	20.5	20.5	21.0	21.6	20.6	20.4	20.4	20.6	20.4	20.4	21.0			
170	22.8	22.0	21.6	21.7	21.8	21.7	21.5	21.6	22.4	21.3	21.3	21.6	21.8	21.7	21.6	21.8			
175	23.6	22.8	22.6	22.6	22.7	22.6	22.5	22.5	23.5	22.4	22.4	22.6	22.7	22.7	22.6	22.7			
180	24.0	23.1	23.0	23.1	23.1	23.2	23.1	23.1	24.1	23.1	23.0	23.1	23.2	23.2	23.1	23.0			

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:zcx
 Test Date:2020-06-18

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: