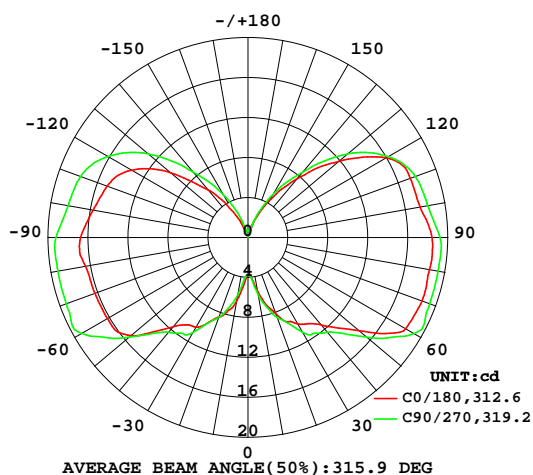


LUMINAIRE PHOTOMETRIC TEST REPORT

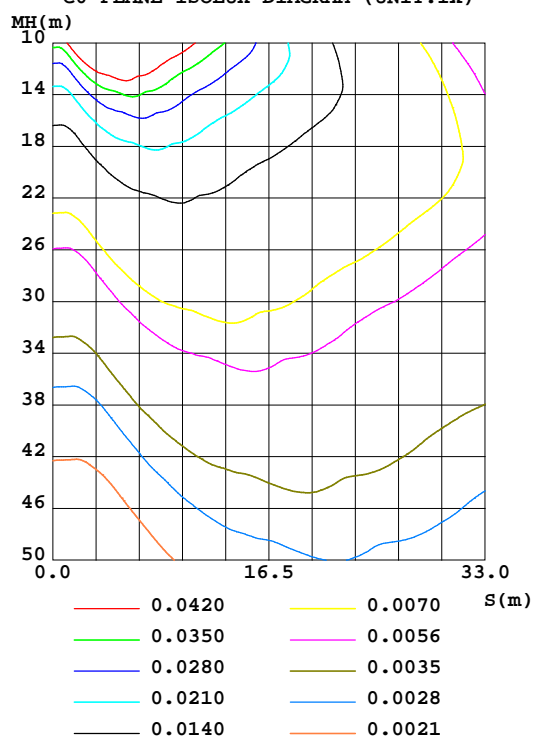
Test:U:12.00V I:0.1302A P:1.560W PF:0 Freq:0Hz Lamp Flux:177.208x1 lm		
NAME: LED LINE LIGHT	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Brilliance LED	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 113.59 lm/W			
MODEL		I _{max} (cd)	19.68	S/MH(C0/180)	3.40
NOMINAL POWER(W)	2	LOR(%)	100.0	S/MH(C90/270)	3.63
RATED VOLTAGE(V)	12	TOTAL FLUX(lm)	177.21	h UP,DN(C0-180)	23.3,27.9
NOMINAL FLUX(lm)	177.208	CIE CLASS	DIFFUSE	h UP,DN(C180-360)	21.7,27.1
LAMPS INSIDE	1	h up(%)	45.0	CIBSE SHR NOM	2.00
TEST VOLTAGE(V)	230	h down(%)	55.0	CIBSE SHR MAX	2.00

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 180DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2019-04-22

Checker:

g Range: 0 - 180DEG
 g Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.361
 Humidity:65.0%
 Test Distance:9.872m [K=1.0000]
 Remarks:

Assessor:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

g	C0	C90	C180	C270					g	F zone	F total	%lum,lamp
10	5.378	5.700	6.343	5.700					0- 10	0.4574	0.4574	0.26,0.26
20	8.095	8.513	8.470	8.513					10- 20	2.076	2.533	1.43,1.43
30	9.986	10.94	10.37	10.94					20- 30	4.396	6.929	3.91,3.91
40	11.44	12.38	11.67	12.38					30- 40	7.070	14.00	7.9,7.9
50	14.50	15.50	15.25	15.50					40- 50	10.44	24.44	13.8,13.8
60	18.22	19.20	16.24	19.20					50- 60	15.18	39.62	22.4,22.4
70	18.53	19.36	16.31	19.36					60- 70	18.27	57.89	32.7,32.7
80	18.45	19.32	16.51	19.32					70- 80	19.44	77.33	43.6,43.6
90	18.40	19.22	16.75	19.22					80- 90	20.17	97.50	55,55
100	17.50	18.28	15.75	18.28					90-100	19.54	117.0	66,66
110	17.30	17.81	15.02	17.81					100-110	18.22	135.3	76.3,76.3
120	15.96	16.21	13.49	16.21					110-120	16.31	151.6	85.5,85.5
130	11.88	13.03	10.10	13.03					120-130	12.47	164.0	92.6,92.6
140	7.701	8.588	6.235	8.588					130-140	7.694	171.7	96.9,96.9
150	4.264	4.931	2.938	4.931					140-150	3.824	175.6	99.1,99.1
160	1.519	1.772	0.6950	1.772					150-160	1.337	176.9	99.8,99.8
170	0.6793	0.7336	0.6802	0.7336					160-170	0.2549	177.1	100,100
180	0.6662	0.6662	0.6777	0.6662					170-180	0.0658	177.2	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 18.672 lm

%lum = 10.5%

%lamp = 10.5%

Conical surface Flux(120deg): 39.617 lm

%lum = 22.4%

%lamp = 22.4%

C Range: 0 - 180DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2019-04-22

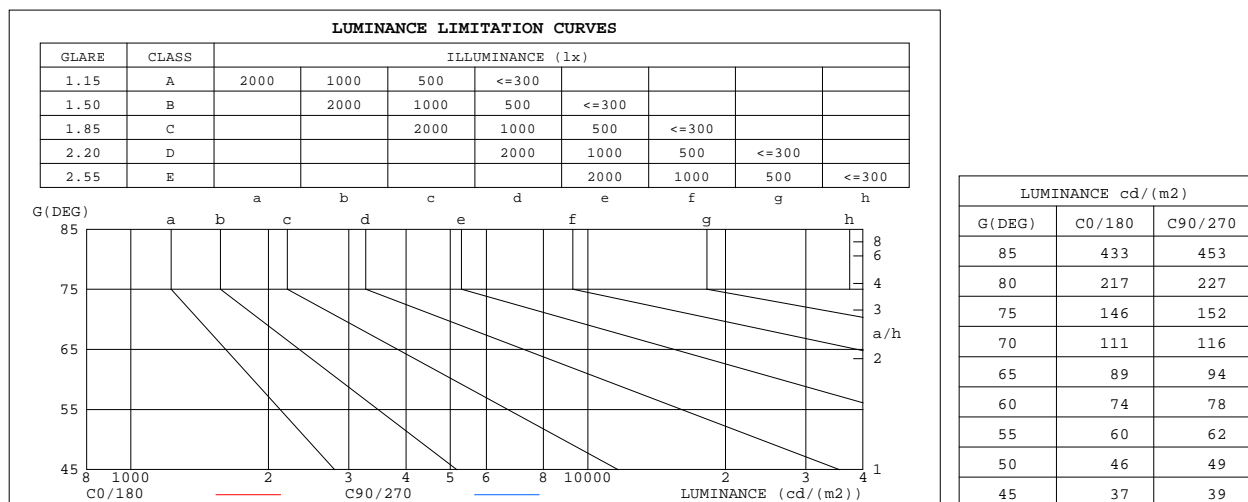
Checker:

g Range: 0 - 180DEG
 g Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.361
 Humidity:65.0%
 Test Distance:9.872m [K=1.0000]
 Remarks:

Assessor:

LUMINANCE LIMITATION CURVES

Test:U:12.00V I:0.1302A P:1.560W PF:0 Freq:0Hz Lamp Flux:177.208x1 lm		
NAME: LED LINE LIGHT	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Brilliance LED	SUR.:	Shielding Angle:



C Range: 0 - 180DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2019-04-22

Checker:

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.361
Humidity: 65.0%
Test Distance: 9.872m [K=1.0000]
Remarks:

Assessor:

WEC AND CCEC

Test:U:12.00V I:0.1302A P:1.560W PF:0 Freq:0Hz Lamp Flux:177.208x1 lm		
NAME: LED LINE LIGHT	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Brilliance LED	SUR.:	Shielding Angle:

r _{cc}	80%			70%			50%			30%			10%			0	
r _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
r _{fc}	20%			20%			20%			20%			20%			0	
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.443	.252	.080	.422	.241	.076	.382	.219	.070	.346	.200	.064	.313	.181	.058		
2.0	.365	.200	.061	.346	.191	.059	.310	.172	.054	.277	.155	.049	.246	.139	.044		
3.0	.316	.168	.050	.298	.160	.048	.265	.144	.044	.235	.129	.039	.207	.114	.035		
4.0	.279	.145	.043	.263	.138	.041	.233	.124	.037	.205	.110	.033	.179	.097	.030		
5.0	.251	.128	.037	.236	.121	.035	.208	.108	.032	.183	.096	.029	.158	.085	.025		
6.0	.228	.114	.033	.214	.108	.031	.189	.097	.028	.165	.086	.025	.142	.075	.022		
7.0	.208	.103	.029	.196	.098	.028	.172	.087	.025	.150	.077	.022	.129	.067	.020		
8.0	.192	.094	.026	.180	.089	.025	.159	.079	.023	.138	.070	.020	.119	.061	.018		
9.0	.178	.086	.024	.167	.082	.023	.147	.073	.021	.128	.064	.018	.110	.056	.016		
10.0	.166	.080	.022	.156	.075	.021	.137	.067	.019	.119	.059	.017	.102	.051	.015		

r _{cc}	80%			70%			50%			30%			10%			0
r _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
r _{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio Ceiling Cavity Exitance Coefficients(CCEC)															
0.0	.533	.533	.533	.456	.456	.456	.311	.311	.311	.179	.179	.179	.057	.057	.057	
1.0	.535	.501	.469	.458	.430	.404	.313	.296	.279	.180	.171	.162	.058	.055	.053	
2.0	.530	.479	.437	.454	.413	.378	.311	.286	.263	.179	.166	.154	.058	.054	.050	
3.0	.523	.464	.418	.448	.401	.362	.308	.278	.254	.178	.163	.150	.057	.053	.049	
4.0	.516	.453	.405	.442	.391	.352	.304	.273	.248	.176	.160	.147	.057	.052	.048	
5.0	.508	.444	.397	.436	.384	.345	.300	.268	.244	.174	.158	.145	.056	.051	.048	
6.0	.501	.437	.391	.430	.378	.340	.297	.265	.241	.172	.156	.143	.056	.051	.047	
7.0	.493	.430	.386	.424	.373	.337	.293	.262	.239	.170	.154	.142	.055	.050	.047	
8.0	.487	.425	.383	.419	.369	.334	.290	.259	.237	.169	.153	.141	.055	.050	.047	
9.0	.480	.421	.380	.414	.365	.332	.287	.257	.236	.167	.152	.141	.054	.050	.047	
10.0	.474	.417	.378	.409	.362	.330	.284	.255	.235	.165	.151	.140	.054	.049	.046	

C Range: 0 - 180DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2019-04-22

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.361
Humidity:65.0%
Test Distance:9.872m [K=1.0000]
Remarks:

Checker:

Assessor:

UGR(Unified Glare Rating) Table

Test:U:12.00V I:0.1302A P:1.560W PF:0 Freq:0Hz Lamp Flux:177.208x1 lm											
NAME: LED LINE LIGHT					TYPE:			WEIGHT:			
SPEC.:					DIM.:			SERIAL No.:			
MFR.: Brilliance LED					SUR.:			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	6.7	7.9	7.6	8.8	9.8	7.0	8.2	7.8	9.0	10.1	
	3H	10.2	11.3	11.0	12.1	13.3	10.4	11.5	11.3	12.4	13.5
	4H	12.1	13.1	12.9	14.0	15.1	12.3	13.3	13.2	14.2	15.3
	6H	14.1	15.1	15.0	16.0	17.1	14.4	15.3	15.2	16.2	17.4
	8H	15.2	16.2	16.1	17.1	18.2	15.5	16.4	16.4	17.3	18.5
	12H	16.5	17.4	17.4	18.4	19.5	16.8	17.7	17.7	18.6	19.8
4H	2H	7.9	8.9	8.8	9.8	10.9	8.1	9.1	8.9	10.0	11.1
	3H	11.4	12.3	12.3	13.2	14.4	11.6	12.5	12.4	13.4	14.5
	4H	13.4	14.2	14.3	15.1	16.3	13.5	14.4	14.4	15.3	16.5
	6H	15.5	16.3	16.4	17.2	18.4	15.7	16.5	16.7	17.4	18.7
	8H	16.7	17.4	17.7	18.4	19.6	17.0	17.7	17.9	18.6	19.9
	12H	18.2	18.8	19.1	19.8	21.0	18.4	19.0	19.3	20.0	21.2
8H	4H	14.1	14.8	15.0	15.7	17.0	14.2	14.9	15.2	15.9	17.1
	6H	16.5	17.1	17.5	18.1	19.4	16.7	17.3	17.7	18.3	19.5
	8H	17.9	18.5	18.9	19.5	20.7	18.1	18.7	19.1	19.6	20.9
	12H	19.6	20.0	20.5	21.0	22.3	19.8	20.2	20.7	21.2	22.5
12H	4H	14.3	14.9	15.2	15.9	17.2	14.4	15.1	15.4	16.0	17.3
	6H	16.9	17.4	17.8	18.4	19.7	17.0	17.5	18.0	18.5	19.8
	8H	18.4	18.9	19.4	19.9	21.1	18.6	19.0	19.5	20.0	21.3
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, 177.2 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -6.0)

C Range: 0 - 180DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2019-04-22

Checker:

g Range: 0 - 180DEG
 g Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.361
 Humidity:65.0%
 Test Distance:9.872m [K=1.0000]
 Remarks:

Assessor:

UTILIZATION FACTORS TABLE

Test:U:12.00V I:0.1302A P:1.560W PF:0 Freq:0Hz Lamp Flux:177.208x1 lm		
NAME: LED LINE LIGHT	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Brilliance LED	SUR.:	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	35	22	14	33	21	14	30	19	13	5
0.80	43	29	20	41	27	19	36	25	17	8
1.00	50	35	26	47	34	25	42	32	22	11
1.25	57	42	32	53	40	31	47	35	28	15
1.50	63	48	38	58	45	36	51	40	32	17
2.00	71	57	47	66	53	44	56	47	39	22
2.50	76	63	53	70	59	50	60	51	44	25
3.00	80	68	59	74	64	55	64	55	48	28
4.00	86	75	67	79	70	63	68	61	55	32
5.00	89	80	73	83	75	68	71	64	59	35
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 180DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2019-04-22

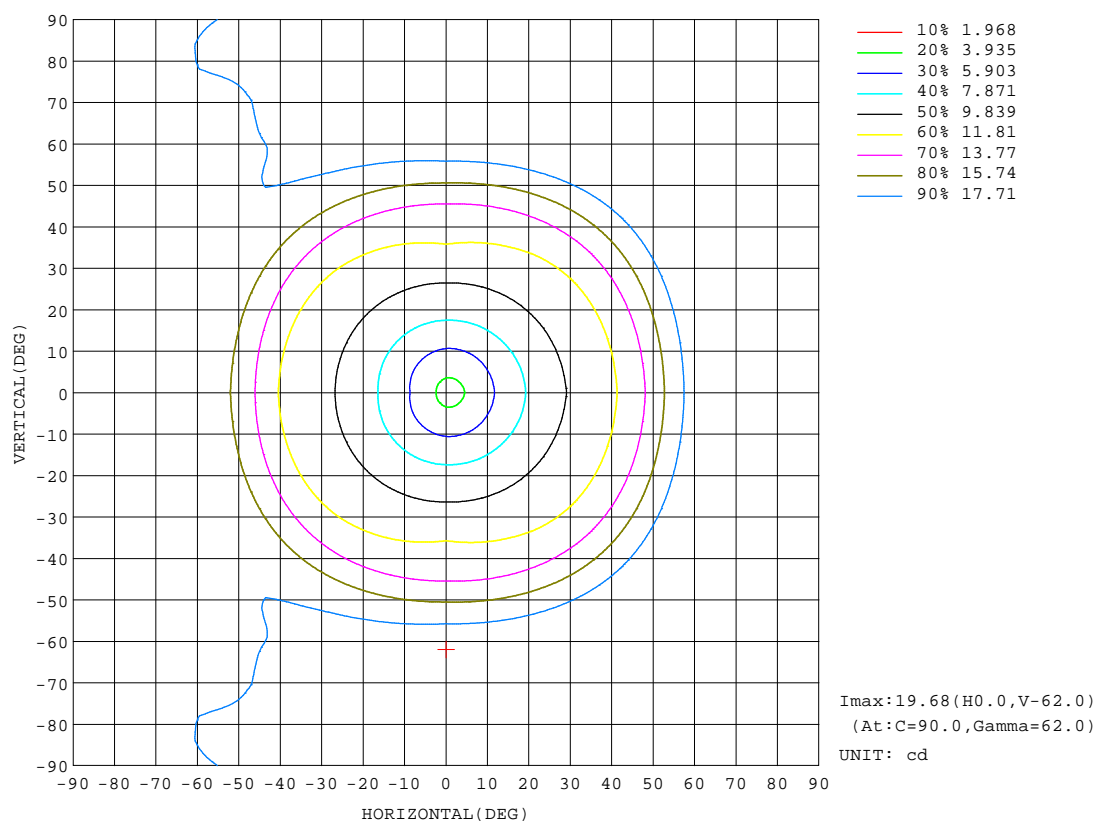
Checker:

g Range: 0 - 180DEG
 g Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.361
 Humidity:65.0%
 Test Distance:9.872m [K=1.0000]
 Remarks:

Assessor:

ISOCANDELA DIAGRAM

Test:U:12.00V I:0.1302A P:1.560W PF:0 Freq:0Hz Lamp Flux:177.208x1 lm		
NAME: LED LINE LIGHT	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Brilliance LED	SUR.:	Shielding Angle:



C Range: 0 - 180DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2019-04-22

Checker:

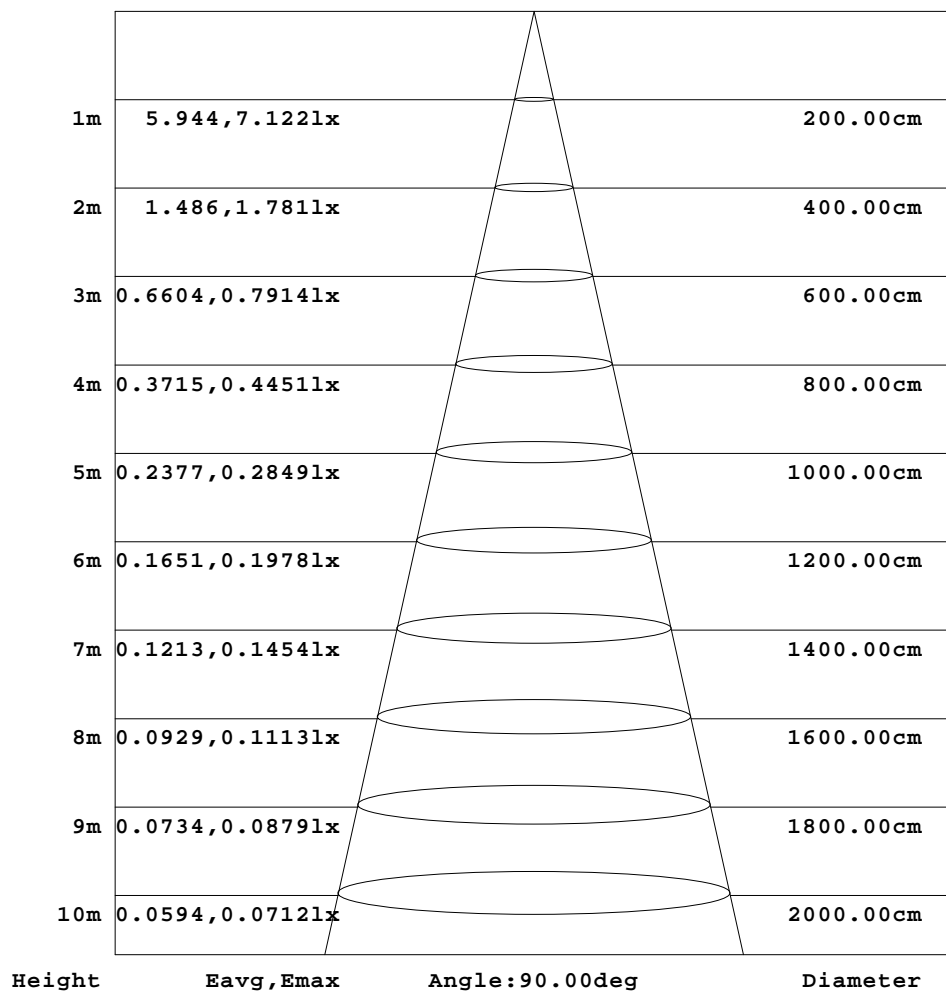
g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.361
Humidity:65.0%
Test Distance:9.872m [K=1.0000]
Remarks:

Assessor:

AAI Figure

Test:U:12.00V I:0.1302A P:1.560W PF:0 Freq:0Hz Lamp Flux:177.208x1 lm		
NAME: LED LINE LIGHT	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Brilliance LED	SUR.:	Shielding Angle:

Flux out:18.67 lm



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

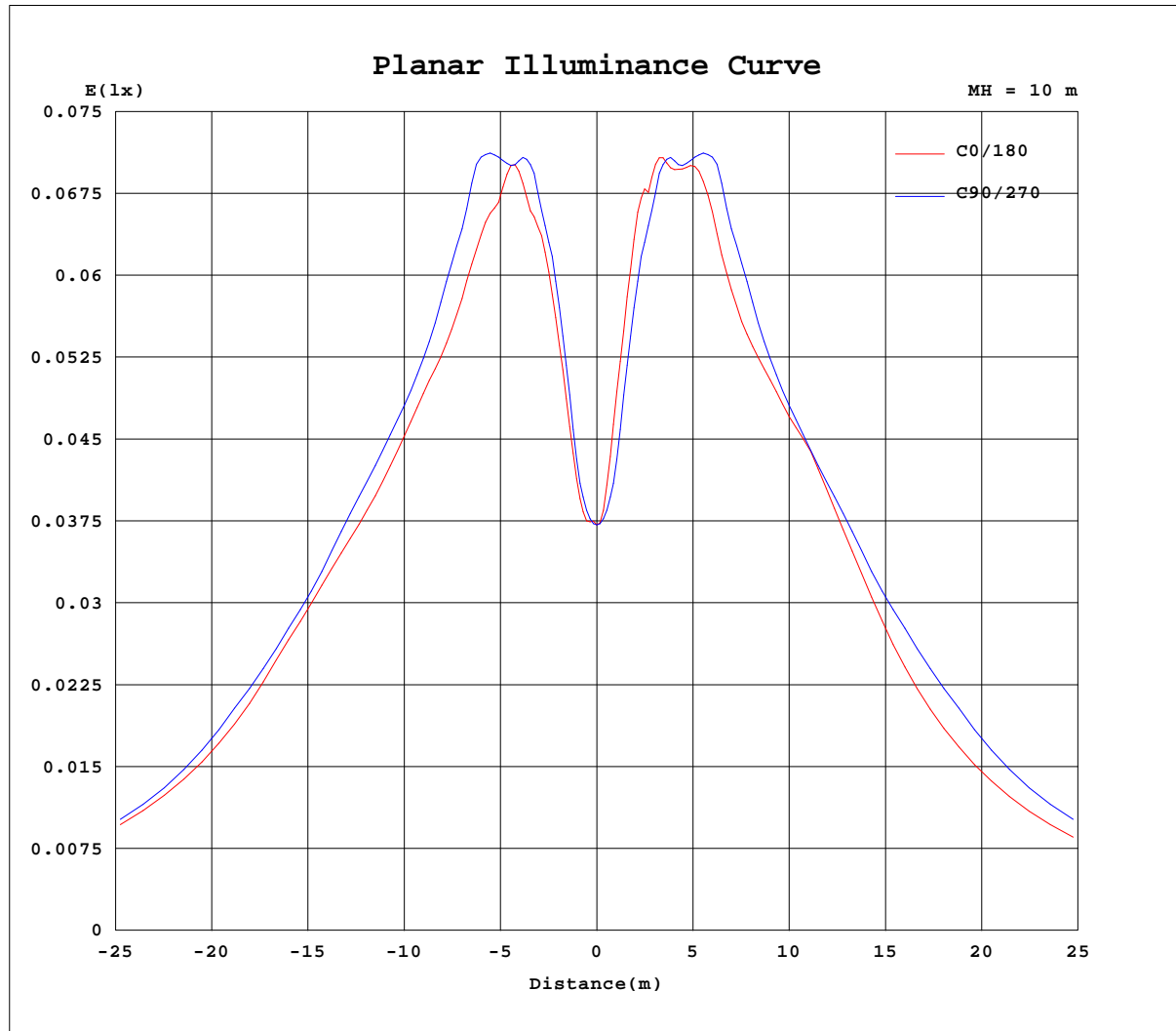
C Range: 0 - 180DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2019-04-22

g Range: 0 - 180DEG
 g Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.361
 Humidity: 65.0%
 Test Distance: 9.872m [K=1.0000]
 Remarks:

Checker:

Assessor:

Planar Illuminance Curve



C Range: 0 - 180DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2019-04-22

Checker:

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.361
Humidity: 65.0%
Test Distance: 9.872m [K=1.0000]
Remarks:

Assessor:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:12.00V I:0.1302A P:1.560W PF:0 Freq:0Hz Lamp Flux:177.208x1 lm		
NAME: LED LINE LIGHT	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Brilliance LED	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C(DEG) g (DEG)	0	90	180	270															
0	3.76	3.72	3.72	3.72															
5	4.00	4.14	4.69	4.14															
10	5.38	5.70	6.34	5.70															
15	6.89	7.16	7.50	7.16															
20	8.09	8.51	8.47	8.51															
25	9.30	9.44	9.39	9.44															
30	9.99	10.9	10.4	10.9															
35	10.5	11.7	10.7	11.7															
40	11.4	12.4	11.7	12.4															
45	12.8	13.6	13.3	13.6															
50	14.5	15.5	15.2	15.5															
55	16.8	17.4	16.2	17.4															
60	18.2	19.2	16.2	19.2															
65	18.4	19.5	16.3	19.5															
70	18.5	19.4	16.3	19.4															
75	18.5	19.3	16.3	19.3															
80	18.5	19.3	16.5	19.3															
85	18.5	19.3	16.9	19.3															
90	18.4	19.2	16.8	19.2															
95	18.0	18.7	16.2	18.7															
100	17.5	18.3	15.7	18.3															
105	17.3	18.1	15.3	18.1															
110	17.3	17.8	15.0	17.8															
115	17.1	17.3	14.5	17.3															
120	16.0	16.2	13.5	16.2															
125	14.0	14.8	12.0	14.8															
130	11.9	13.0	10.1	13.0															
135	9.89	10.9	7.90	10.9															
140	7.70	8.59	6.24	8.59															
145	5.97	6.78	4.62	6.78															
150	4.26	4.93	2.94	4.93															
155	2.85	3.35	1.68	3.35															
160	1.52	1.77	0.70	1.77															
165	0.68	0.78	0.68	0.78															
170	0.68	0.73	0.68	0.73															
175	0.67	0.69	0.68	0.69															
180	0.67	0.67	0.68	0.67															

C Range: 0 - 180DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2019-04-22

Checker:

g Range: 0 - 180DEG
 g Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.361
 Humidity:65.0%
 Test Distance:9.872m [K=1.0000]
 Remarks:

Assessor: