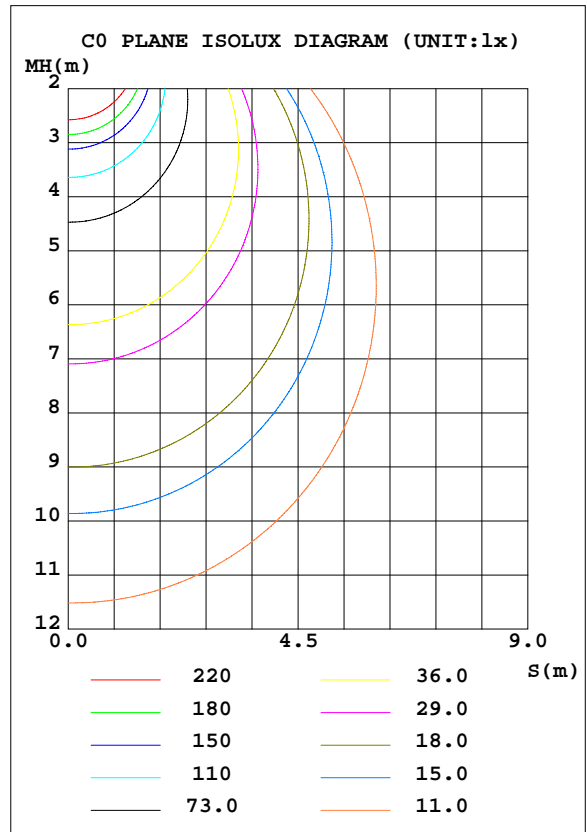
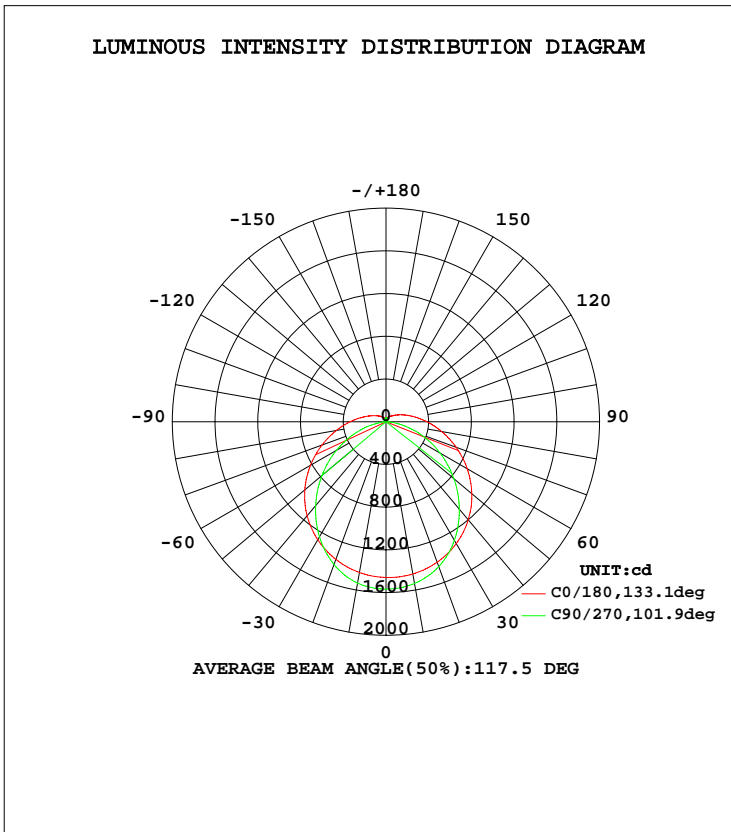


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.9V I:0.1790A P:38.70W PF:0.9760 Lamp Flux:5200.12x1 lm		
NAME: led strip light	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 134.37 lm/W			
MODEL	ASD-LSF2-4D4050PRM	I <sub>max</sub> (cd)	1568	S/MH(C0/180)	1.31
NOMINAL POWER(W)	40	LOR(%)	100.0	S/MH(C90/270)	1.19
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	5200.1	η UP, DN(C0-180)	5.1,46.5
NOMINAL FLUX(lm)	5200.12	CIE CLASS	DIRECT	η UP, DN(C180-360)	4.5,43.8
LAMPS INSIDE	1	η up(%)	9.6	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	220	η down(%)	90.4	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2017-05-18

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
 Humidity:65.0%  
 Test Distance:8.800m [K=1.0000]  
 Remarks: led strip light

## ZONAL FLUX DIAGRAM

## ZONAL FLUX DIAGRAM:

$\gamma$	C0	C90	C180	C270					$\gamma$	$\Phi$ zone	$\Phi$ total	$\Phi$ lum,lamp
10	1448	1537	1433	1534					0- 10	143.2	143.2	2.75,2.75
20	1400	1444	1372	1423					10- 20	410.8	554.1	10.7,10.7
30	1317	1282	1276	1245					20- 30	622.4	1176	22.6,22.6
40	1199	1069	1149	1025					30- 40	750.4	1927	37.1,37.1
50	1049	830.5	993.0	783.2					40- 50	783.0	2710	52.1,52.1
60	878.0	584.7	817.3	535.9					50- 60	724.3	3434	66,66
70	699.3	344.2	637.6	296.1					60- 70	592.6	4027	77.4,77.4
80	529.4	125.9	472.5	86.12					70- 80	418.2	4445	85.5,85.5
90	383.9	1.452	337.2	0					80- 90	254.3	4699	90.4,90.4
100	270.5	1.585	232.6	2.515					90-100	166.2	4865	93.6,93.6
110	188.0	5.664	162.7	6.716					100-110	114.0	4979	95.8,95.8
120	131.2	9.697	115.8	11.11					110-120	77.62	5057	97.2,97.2
130	92.32	13.39	84.52	14.91					120-130	52.47	5109	98.3,98.3
140	68.33	17.24	62.97	18.59					130-140	35.84	5145	98.9,98.9
150	53.01	24.26	48.37	24.88					140-150	24.75	5170	99.4,99.4
160	43.32	30.91	38.36	30.68					150-160	17.00	5187	99.7,99.7
170	36.57	35.35	30.41	35.33					160-170	10.02	5197	99.9,99.9
180	17.05	38.14	17.12	37.96					170-180	3.020	5200	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

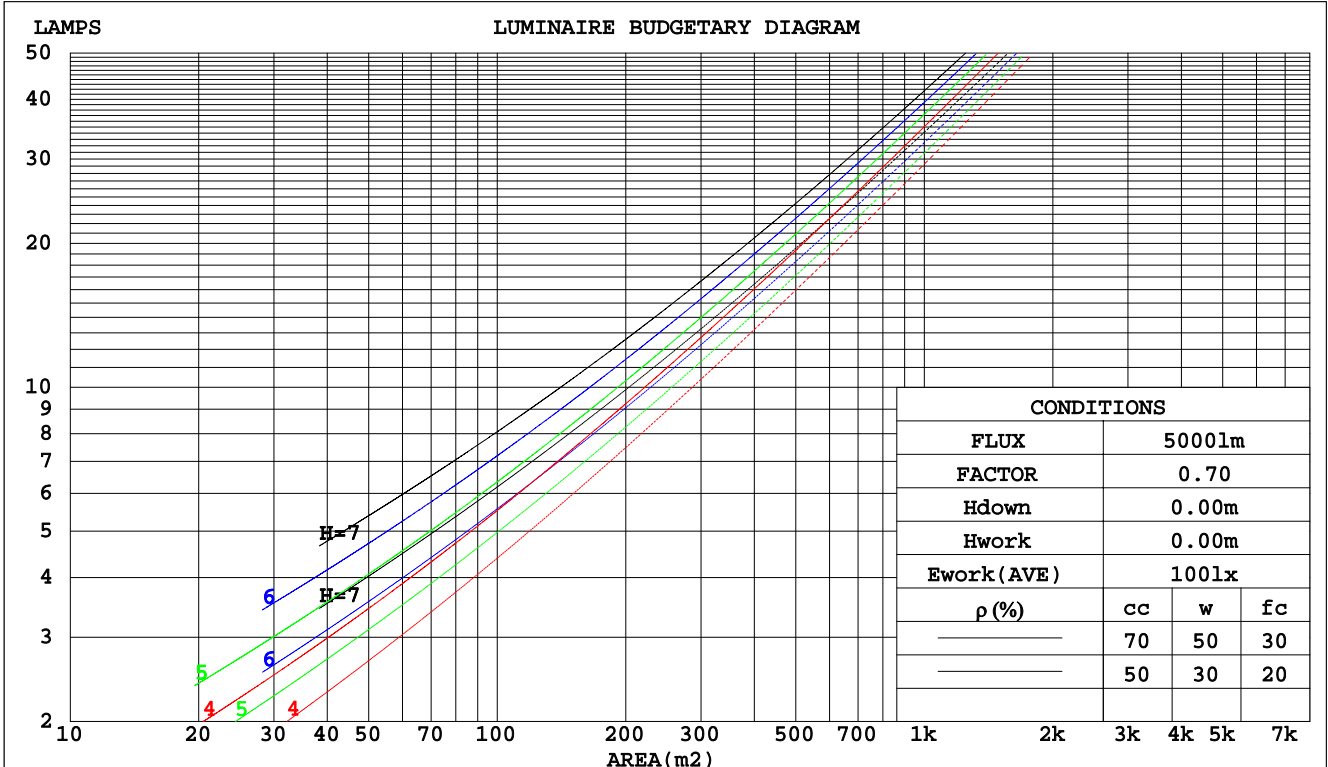
C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2017-05-18

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
 Humidity:65.0%  
 Test Distance:8.800m [K=1.0000]  
 Remarks: led strip light

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.9V I:0.1790A P:38.70W PF:0.9760 Lamp Flux:5200.12x1 lm		
NAME: led strip light	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pw																0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	1.17	1.17	1.17	1.13	1.13	1.13	1.06	1.06	1.06	.99	.99	.99	.93	.93	.93	.90
1.0	.00	.95	.90	.96	.92	.88	.90	.87	.83	.85	.82	.79	.80	.77	.75	.72
2.0	.86	.79	.73	.83	.77	.71	.78	.73	.68	.73	.69	.65	.69	.65	.62	.59
3.0	.75	.67	.60	.73	.65	.59	.68	.62	.56	.64	.59	.54	.61	.56	.52	.49
4.0	.66	.57	.50	.64	.56	.49	.61	.53	.48	.57	.51	.46	.54	.49	.44	.42
5.0	.59	.50	.43	.57	.49	.42	.54	.47	.41	.51	.45	.40	.48	.43	.38	.36
6.0	.53	.44	.38	.52	.43	.37	.49	.41	.36	.46	.40	.35	.44	.38	.34	.31
7.0	.48	.39	.33	.47	.38	.33	.44	.37	.32	.42	.36	.31	.40	.34	.30	.28
8.0	.44	.35	.29	.43	.35	.29	.41	.33	.28	.39	.32	.27	.37	.31	.27	.25
9.0	.40	.32	.26	.39	.31	.26	.37	.30	.25	.36	.29	.25	.34	.28	.24	.22
10.0	.37	.29	.24	.36	.29	.24	.35	.28	.23	.33	.27	.22	.31	.26	.22	.20



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2017-05-18

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
 Humidity:65.0%  
 Test Distance:8.800m [K=1.0000]  
 Remarks: led strip light

WEC AND CCEC

Test:U:220.9V I:0.1790A P:38.70W PF:0.9760 Lamp Flux:5200.12x1 lm		
NAME: led strip light	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.347	.197	.063	.337	.192	.061	.318	.182	.058	.301	.173	.056	.285	.165	.053	
2.0	.311	.170	.052	.302	.166	.051	.285	.159	.049	.270	.151	.047	.255	.144	.045	
3.0	.281	.150	.045	.273	.146	.044	.258	.140	.043	.244	.134	.041	.231	.128	.040	
4.0	.256	.133	.039	.249	.130	.039	.235	.125	.037	.223	.120	.036	.211	.115	.035	
5.0	.235	.120	.035	.228	.117	.034	.216	.113	.033	.205	.108	.032	.194	.104	.031	
6.0	.217	.109	.031	.211	.106	.031	.200	.102	.030	.189	.098	.029	.179	.094	.028	
7.0	.201	.099	.028	.195	.097	.028	.185	.094	.027	.176	.090	.026	.167	.087	.025	
8.0	.187	.091	.026	.182	.090	.025	.173	.086	.025	.164	.083	.024	.156	.080	.023	
9.0	.175	.084	.024	.170	.083	.023	.162	.080	.023	.154	.077	.022	.146	.074	.021	
10.0	.164	.079	.022	.160	.077	.022	.152	.074	.021	.145	.072	.020	.138	.069	.020	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.264	.264	.264	.226	.226	.226	.154	.154	.154	.088	.088	.088	.028	.028	.028	
1.0	.257	.230	.205	.220	.197	.177	.150	.136	.122	.087	.079	.071	.028	.025	.023	
2.0	.249	.206	.170	.214	.178	.147	.146	.123	.103	.084	.071	.060	.027	.023	.020	
3.0	.242	.189	.148	.207	.163	.128	.142	.113	.090	.082	.066	.053	.026	.022	.017	
4.0	.234	.176	.132	.201	.152	.115	.138	.106	.081	.080	.062	.048	.026	.020	.016	
5.0	.226	.166	.122	.194	.144	.106	.134	.100	.075	.078	.059	.044	.025	.019	.015	
6.0	.219	.158	.114	.188	.137	.100	.130	.096	.071	.075	.056	.042	.024	.018	.014	
7.0	.212	.151	.109	.182	.131	.095	.126	.092	.067	.073	.054	.040	.024	.018	.013	
8.0	.205	.146	.105	.177	.126	.091	.122	.089	.065	.071	.052	.039	.023	.017	.013	
9.0	.199	.141	.101	.172	.122	.088	.119	.086	.063	.069	.051	.037	.022	.017	.012	
10.0	.194	.137	.099	.167	.119	.086	.116	.083	.061	.068	.049	.037	.022	.016	.012	

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2017-05-18

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
 Humidity:65.0%  
 Test Distance:8.800m [K=1.0000]  
 Remarks: led strip light

UGR(Unified Glare Rating) Table

Test:U:220.9V I:0.1790A P:38.70W PF:0.9760 Lamp Flux:5200.12x1 lm										
NAME: led strip light					TYPE:LED			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.: ASD Lighting Corp					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	22.3	23.8	22.7	24.1	24.5	21.0	22.4	21.4	22.8	23.1
3H	24.6	25.9	25.0	26.3	26.7	22.3	23.7	22.8	24.1	24.5
4H	25.8	27.0	26.2	27.5	27.9	22.9	24.1	23.3	24.5	25.0
6H	27.1	28.3	27.6	28.7	29.2	23.2	24.4	23.7	24.8	25.3
8H	27.8	29.0	28.3	29.4	29.9	23.3	24.4	23.7	24.9	25.4
12H	28.7	29.8	29.2	30.2	30.7	23.3	24.4	23.8	24.9	25.4
4H 2H	22.8	24.1	23.3	24.5	25.0	21.8	23.1	22.3	23.5	23.9
3H	25.3	26.4	25.8	26.9	27.4	23.4	24.5	23.9	25.0	25.5
4H	26.7	27.7	27.2	28.2	28.7	24.1	25.1	24.6	25.6	26.2
6H	28.2	29.1	28.7	29.6	30.2	24.6	25.5	25.2	26.0	26.6
8H	29.0	29.8	29.6	30.4	31.0	24.8	25.6	25.3	26.1	26.7
12H	30.0	30.8	30.6	31.3	31.9	24.9	25.6	25.4	26.2	26.8
8H 4H	26.9	27.7	27.5	28.3	28.9	24.8	25.6	25.3	26.1	26.7
6H	28.6	29.4	29.2	29.9	30.6	25.5	26.3	26.1	26.8	27.5
8H	29.7	30.3	30.3	30.9	31.5	25.9	26.5	26.5	27.1	27.7
12H	30.9	31.4	31.5	32.0	32.7	26.1	26.6	26.7	27.2	27.9
12H 4H	26.9	27.7	27.5	28.2	28.8	24.9	25.7	25.5	26.3	26.9
6H	28.7	29.4	29.3	29.9	30.6	25.9	26.5	26.5	27.1	27.7
8H	29.8	30.4	30.4	31.0	31.7	26.3	26.8	26.9	27.5	28.1
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.2				
1.5H	+ 0.2 / - 0.2					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.4				

CIE Pub.117 Corrected 5200 lm Total Lamp Luminous Flux.(8log(F/F0) = 5.7)

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2017-05-18

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
 Humidity:65.0%  
 Test Distance:8.800m [K=1.0000]  
 Remarks: led strip light

## UTILIZATION FACTORS TABLE

Test:U:220.9V I:0.1790A P:38.70W PF:0.9760 Lamp Flux:5200.12x1 lm		
NAME: led strip light	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

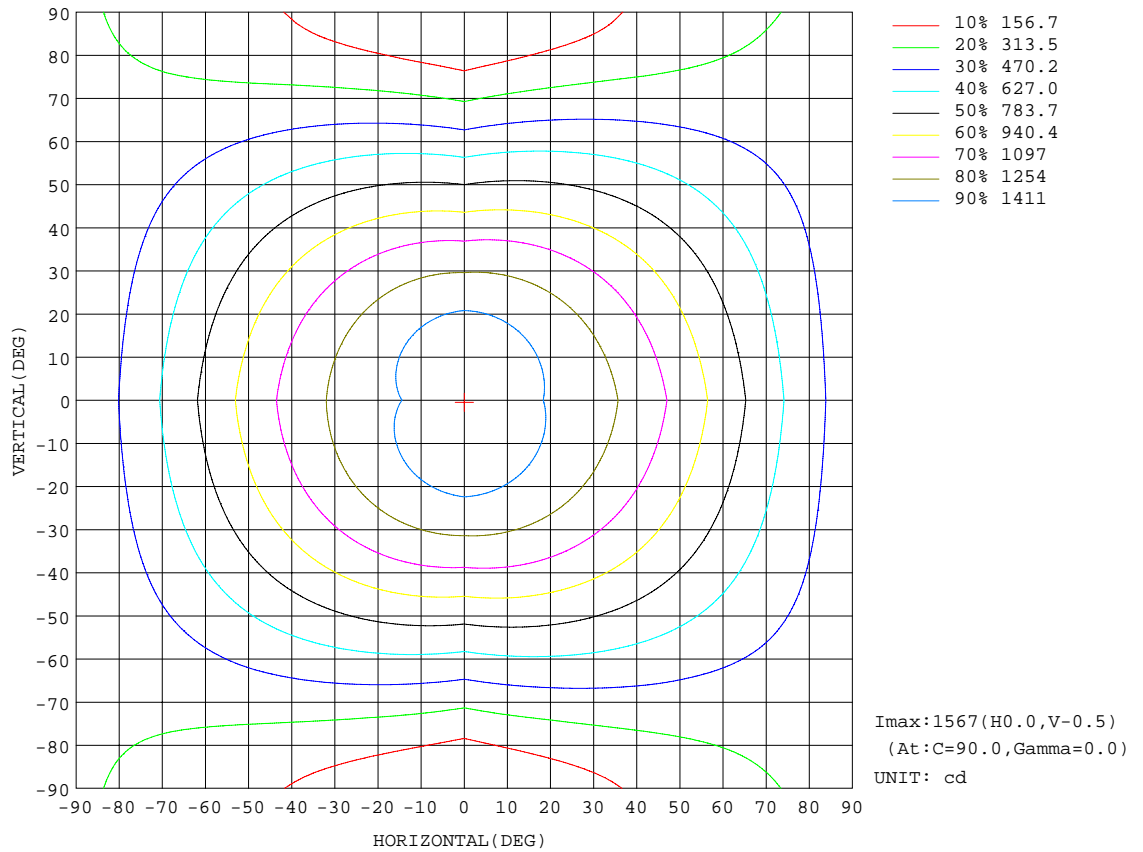
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	53	41	34	52	41	34	50	40	33	27
0.80	62	50	42	61	50	42	59	48	42	34
1.00	70	58	51	69	58	50	66	59	49	41
1.25	77	66	58	75	65	57	72	63	56	48
1.50	82	71	64	80	70	63	76	68	61	52
2.00	89	80	72	87	78	71	82	75	69	59
2.50	94	85	78	91	83	76	86	79	73	63
3.00	97	89	82	94	87	81	89	83	78	67
4.00	101	95	89	98	92	87	92	87	83	71
5.00	104	98	93	101	95	91	95	90	87	74
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2017-05-18

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
 Humidity:65.0%  
 Test Distance:8.800m [K=1.0000]  
 Remarks: led strip light

ISOCANDELA DIAGRAM

Test:U:220.9V I:0.1790A P:38.70W PF:0.9760 Lamp Flux:5200.12x1 lm		
NAME: led strip light	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

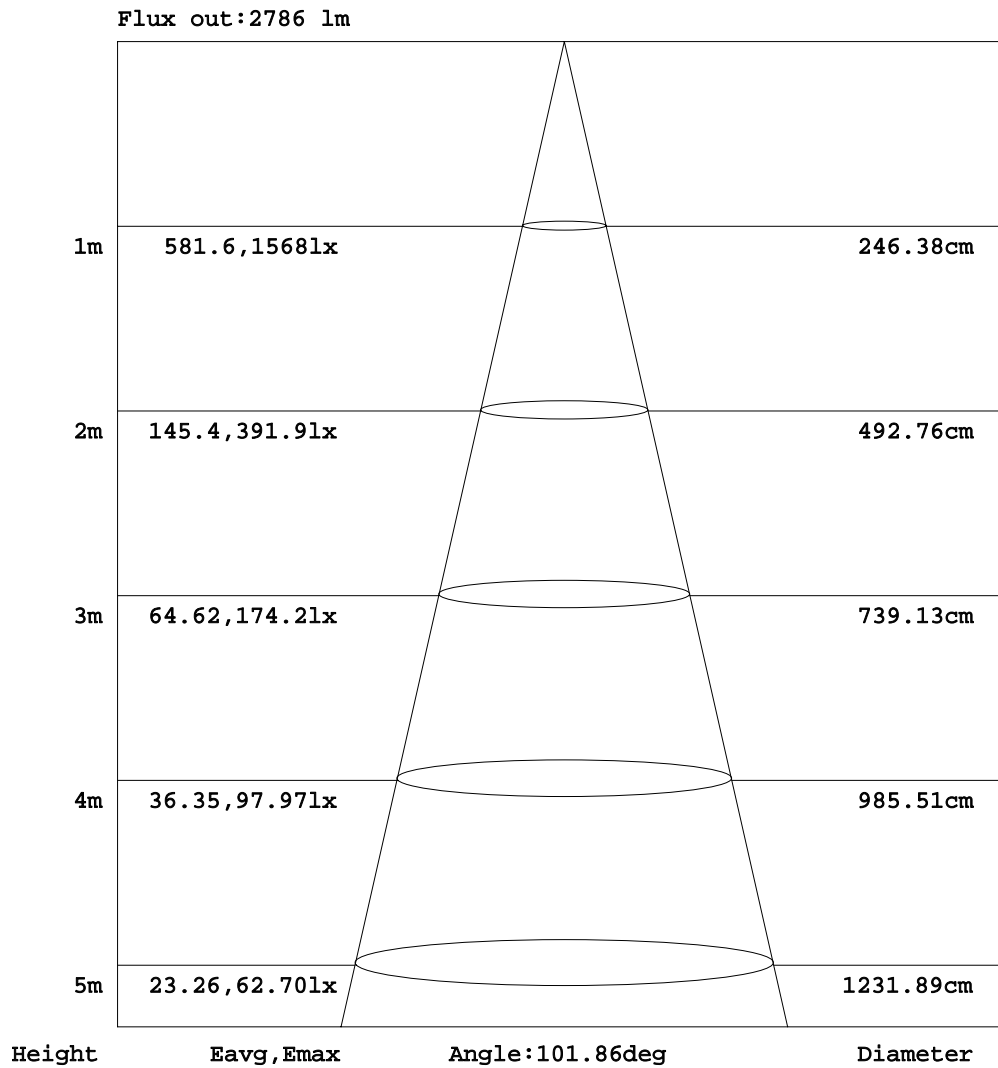


C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators:  
 Test Date: 2017-05-18

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
 Humidity: 65.0%  
 Test Distance: 8.800m [K=1.0000]  
 Remarks: led strip light

AAI Figure

Test:U:220.9V I:0.1790A P:38.70W PF:0.9760 Lamp Flux:5200.12x1 lm		
NAME: led strip light	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:



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

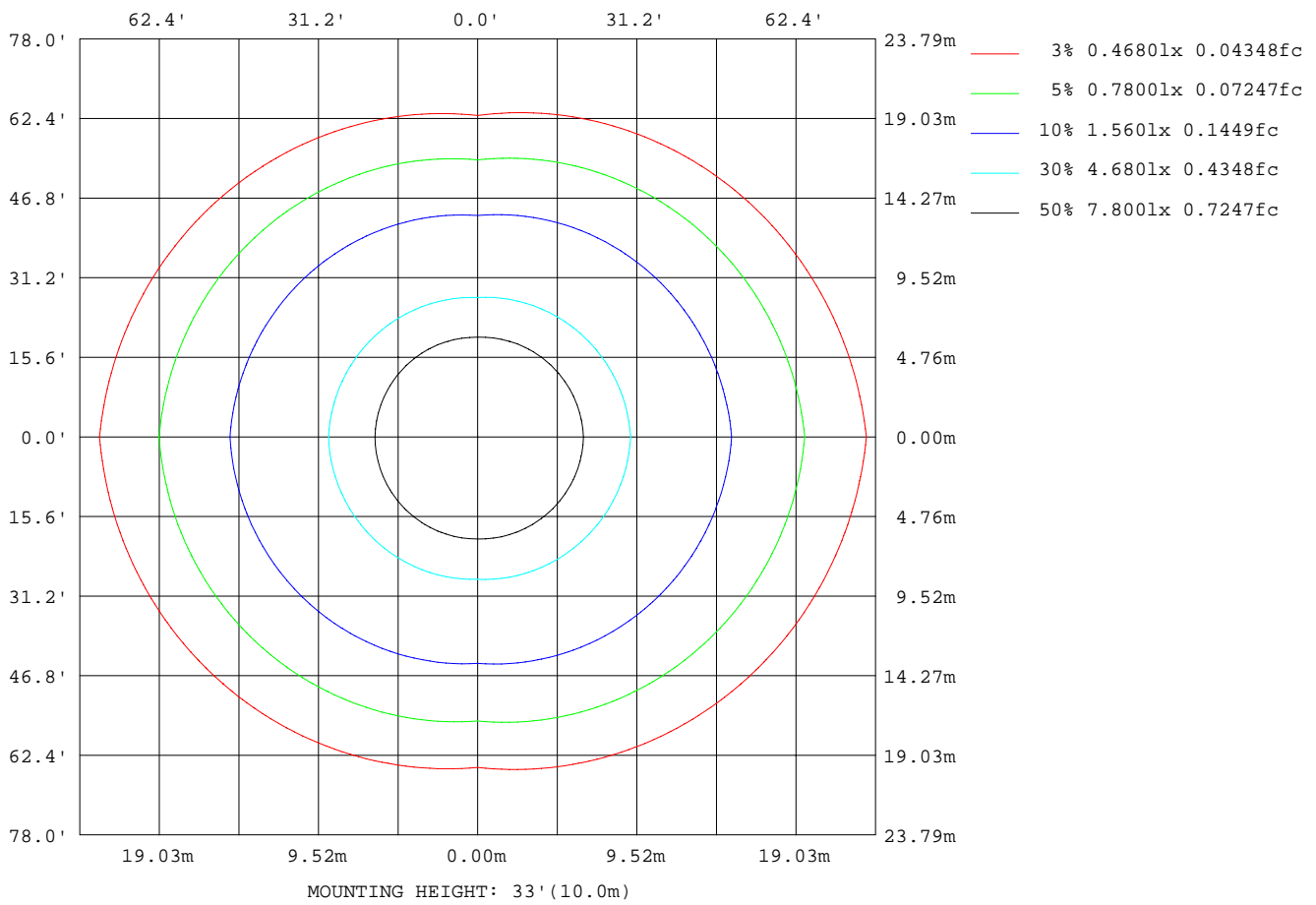
C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2017-05-18

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
 Humidity:65.0%  
 Test Distance:8.800m [K=1.0000]  
 Remarks: led strip light



ISOLUX DIAGRAM

Test:U:220.9V I:0.1790A P:38.70W PF:0.9760 Lamp Flux:5200.12x1 lm		
NAME: led strip light	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2017-05-18

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
 Humidity:65.0%  
 Test Distance:8.800m [K=1.0000]  
 Remarks: led strip light

## LED Avg.L Report

Test:U:220.9V I:0.1790A P:38.70W PF:0.9760 Lamp Flux:5200.12x1 lm		
NAME: led strip light	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

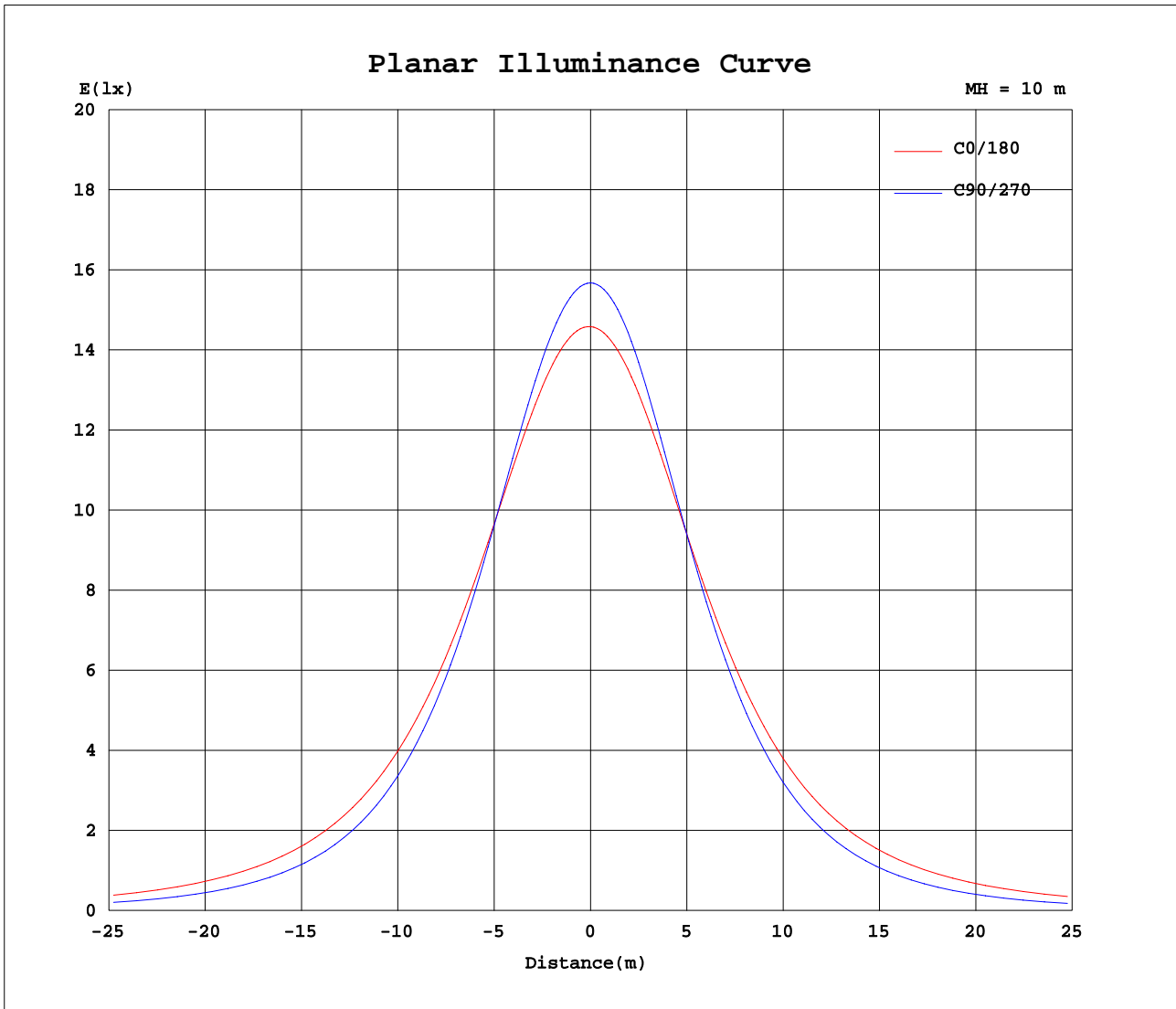
AvgL	cd/m2
L_0~180(65)av	17927
L_0~180(75)av	22491
L_0~180(85)av	48955
L_90~270(65)av	10379
L_90~270(75)av	7974
L_90~270(85)av	3468
L_45(65)av	13164
L_45(75)av	13346
L_45(85)av	20337

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2017-05-18

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
 Humidity:65.0%  
 Test Distance:8.800m [K=1.0000]  
 Remarks: led strip light

Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators:  
 Test Date: 2017-05-18

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
 Humidity: 65.0%  
 Test Distance: 8.800m [K=1.0000]  
 Remarks: led strip light

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.9V I:0.1790A P:38.70W PF:0.9760 Lamp Flux:5200.12x1 lm		
NAME: led strip light	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	90	180	270															
0	1458	1568	1458	1568															
5	1457	1560	1451	1559															
10	1448	1537	1433	1534															
15	1428	1499	1407	1488															
20	1400	1444	1372	1423															
25	1363	1371	1329	1341															
30	1317	1282	1276	1245															
35	1262	1180	1217	1140															
40	1199	1069	1149	1025															
45	1127	952	1074	906															
50	1049	830	993	783															
55	965	707	907	659															
60	878	585	817	536															
65	788	463	727	414															
70	699	344	638	296															
75	612	228	552	185															
80	529	126	473	86.1															
85	453	43.4	400	17.1															
90	384	1.45	337	0.00															
95	323	0.15	283	0.72															
100	270	1.58	233	2.52															
105	226	3.55	194	4.54															
110	188	5.66	163	6.72															
115	157	7.77	137	9.03															
120	131	9.70	116	11.1															
125	109	11.6	98.6	13.0															
130	92.3	13.4	84.5	14.9															
135	79.0	15.1	73.0	16.7															
140	68.3	17.2	63.0	18.6															
145	59.8	20.7	54.3	21.7															
150	53.0	24.3	48.4	24.9															
155	47.6	27.7	43.3	27.9															
160	43.3	30.9	38.4	30.7															
165	39.6	33.5	35.1	33.2															
170	36.6	35.4	30.4	35.3															
175	29.0	37.0	19.1	37.1															
180	17.0	38.1	17.1	38.0															

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2017-05-18

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.295  
 Humidity:65.0%  
 Test Distance:8.800m [K=1.0000]  
 Remarks: led strip light