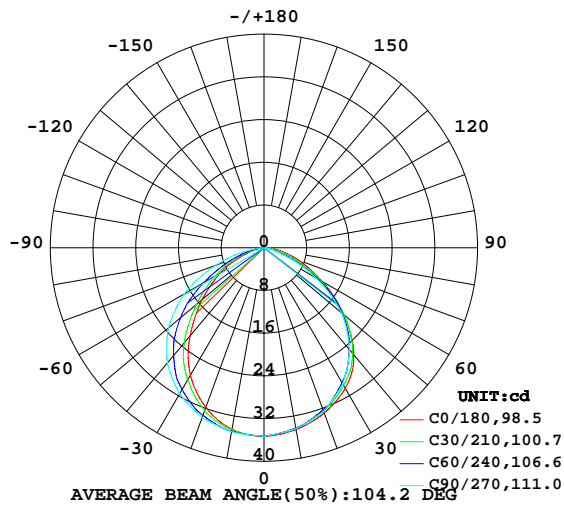


LUMINAIRE PHOTOMETRIC TEST REPORT

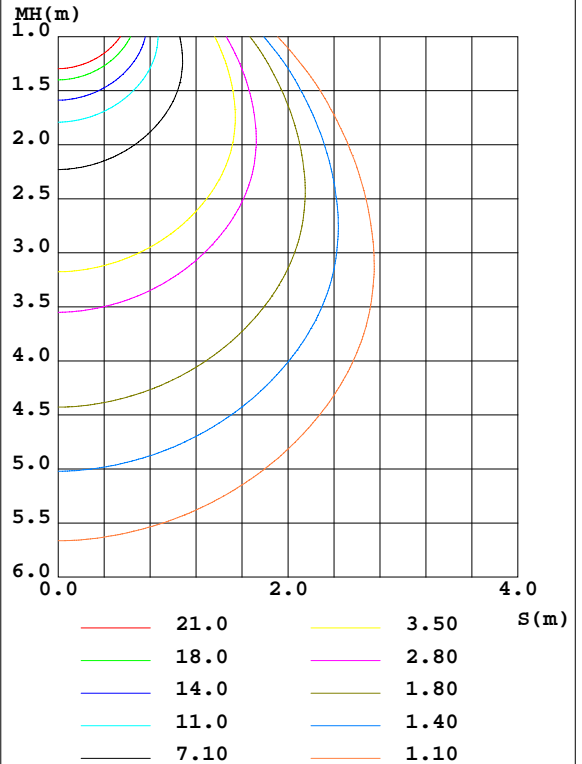
Test:U:119.80V I:0.0147A P:1.4696W PF:0.8329 Freq:59.98Hz Lamp Flux:88.2578x1 lm					
NAME: 3535RGB+2835-120D-120V-YK45		TYPE:LED Strip LIGHT		WEIGHT:1	
SPEC.:609.6*20MM		DIM.: 609.6*20MM		SERIAL No.:1	
MFR.: ESTAR		SUR.:609.6*20MM		Shielding Angle:	

DATA OF LAMP		PHOTOMETRIC DATA Eff: 60.05 lm/W			
MODEL	2700K	I _{max} (cd)	35.30	S/MH(C0/180)	1.17
NOMINAL POWER(W)	6	LOR(%)	100.0	S/MH(C90/270)	1.32
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	88.258	η UP,DN(C0-180)	0.0,46.9
NOMINAL FLUX(lm)	88.2578	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,53.1
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	120	η down(%)	100.0	CIBSE SHR MAX	1.35

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



H(β) Range:-90 - 90DEG
H(β) Interval: 0.2DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:HW
Test Date:28 August 2020

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.421
Humidity:65.0%
Test Distance:9.900m [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	34.58	34.26	34.41	34.28	34.51	34.75	34.97	34.64	0- 10	3.326	3.326	3.77,3.77
20	32.93	32.34	32.56	31.90	31.82	32.90	33.81	33.21	10- 20	9.521	12.85	14.6,14.6
30	30.42	29.52	29.44	28.01	27.56	29.57	31.59	31.00	20- 30	14.41	27.26	30.9,30.9
40	26.15	25.54	24.96	22.60	21.53	24.87	28.20	27.69	30- 40	17.20	44.46	50.4,50.4
50	19.51	19.71	18.98	15.49	15.10	18.39	23.36	22.37	40- 50	17.06	61.52	69.7,69.7
60	12.56	12.06	11.11	8.569	9.495	11.39	17.23	14.81	50- 60	13.76	75.28	85.3,85.3
70	6.984	5.252	3.587	3.686	3.926	5.614	9.598	7.574	60- 70	8.575	83.86	95,95
80	2.865	1.662	0.8513	0.9402	1.287	1.572	2.976	2.778	70- 80	3.672	87.53	99.2,99.2
90	0.1210	0	0	0	0.1819	0	0	0	80- 90	0.7267	88.26	100,100
100									90-100			
110									100-110			
120									110-120			
130									120-130			
140									130-140			
150									140-150			
160									150-160			
170									160-170			
180									170-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 53.217 lm

%lum = 60.3%

%lamp = 60.3%

Conical surface Flux(120deg): 75.284 lm

%lum = 85.3%

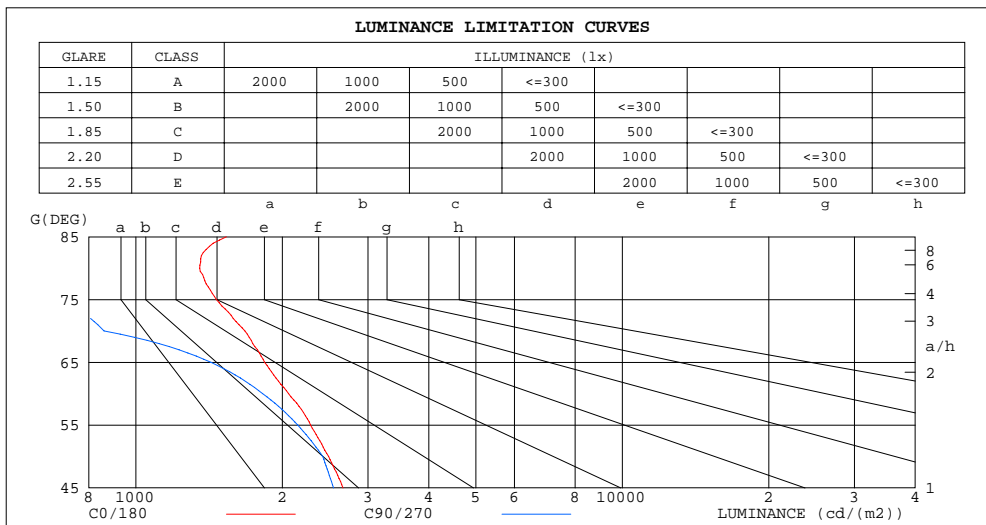
%lamp = 85.3%

H(β) Range:-90 - 90DEG
H(β) Interval: 0.2DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:HW
Test Date:28 August 2020

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.421
Humidity:65.0%
Test Distance:9.900m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:119.80V I:0.0147A P:1.4696W PF:0.8329 Freq:59.98Hz Lamp Flux:88.2578x1 lm		
NAME: 3535RGB+2835-120D-120V-YK45	TYPE:LED Strip LIGHT	WEIGHT:1
SPEC.:609.6*20MM	DIM.: 609.6*20MM	SERIAL No.:1
MFR.: ESTAR	SUR.:609.6*20MM	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	1534	0
80	1353	402
75	1464	703
70	1675	860
65	1838	1426
60	2060	1823
55	2286	2152
50	2490	2422
45	2667	2548

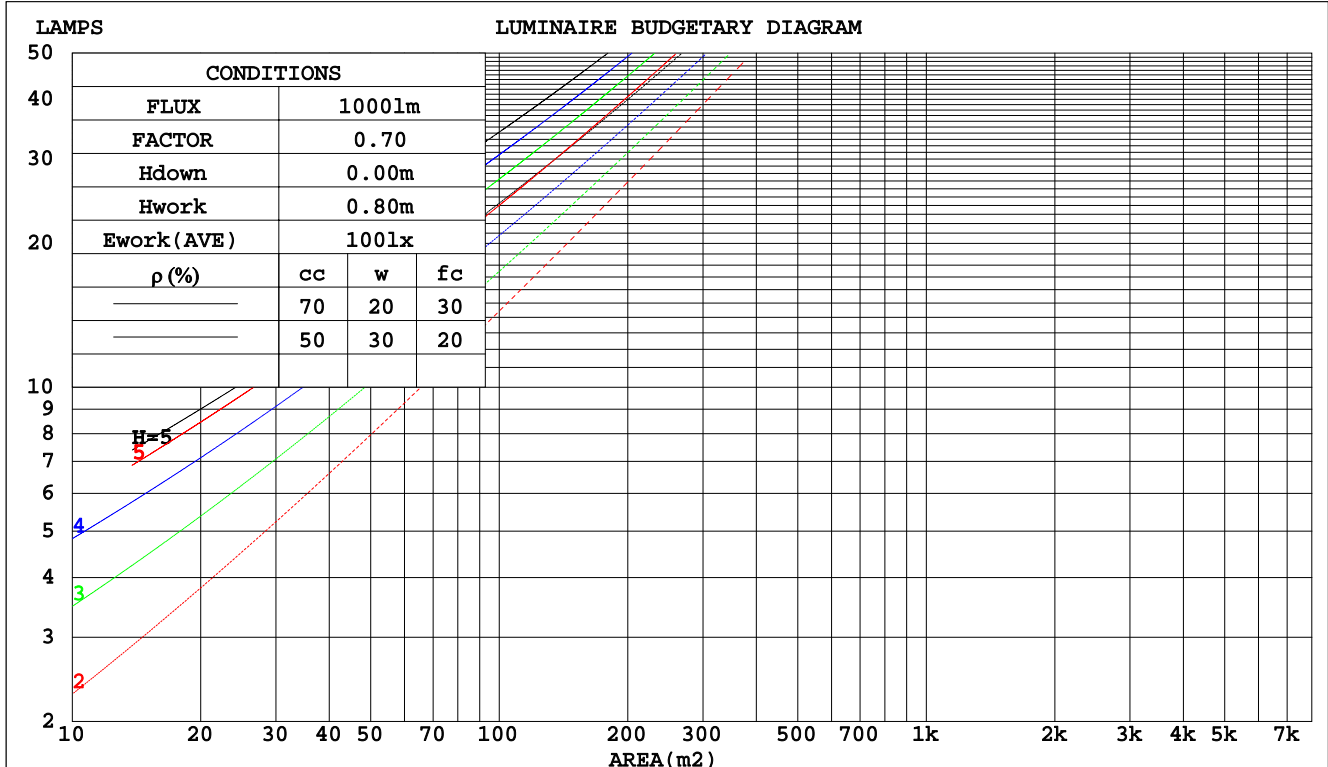
H(β) Range:-90 - 90DEG
 H(β) Interval: 0.2DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:HW
 Test Date:28 August 2020

V(B) Range:-80 - 80DEG
 V(B) Interval: 5.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.421
 Humidity:65.0%
 Test Distance:9.900m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:119.80V I:0.0147A P:1.4696W PF:0.8329 Freq:59.98Hz Lamp Flux:88.2578x1 lm		
NAME: 3535RGB+2835-120D-120V-YK45	TYPE:LED Strip LIGHT	WEIGHT:1
SPEC.:609.6*20MM	DIM.: 609.6*20MM	SERIAL No.:1
MFR.: ESTAR	SUR.:609.6*20MM	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						Coefficients of Utilization(CU)									
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	.00
1.0	1.06	1.02	.98	1.03	.90	.97	.99	.96	.94	.95	.93	.91	.92	.90	.88	.86
2.0	.93	.87	.82	.91	.86	.81	.88	.83	.79	.85	.81	.77	.82	.78	.75	.73
3.0	.82	.75	.69	.81	.74	.68	.78	.72	.67	.75	.70	.66	.73	.68	.65	.63
4.0	.74	.65	.59	.72	.64	.58	.70	.63	.58	.67	.62	.57	.65	.60	.56	.54
5.0	.66	.57	.51	.65	.57	.51	.63	.56	.50	.61	.55	.50	.59	.54	.49	.47
6.0	.60	.51	.45	.59	.51	.45	.57	.50	.44	.55	.49	.44	.54	.48	.43	.42
7.0	.54	.46	.40	.53	.45	.40	.52	.45	.39	.50	.44	.39	.49	.43	.39	.37
8.0	.49	.41	.36	.49	.41	.35	.47	.40	.35	.46	.40	.35	.45	.39	.35	.33
9.0	.45	.37	.32	.45	.37	.32	.44	.37	.32	.43	.36	.32	.42	.36	.32	.30
10.0	.42	.34	.29	.41	.34	.29	.40	.34	.29	.40	.33	.29	.39	.33	.29	.27



H(β) Range:-90 - 90DEG
H(β) Interval: 0.2DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:HW
Test Date:28 August 2020

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.421
Humidity:65.0%
Test Distance:9.900m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:119.80V I:0.0147A P:1.4696W PF:0.8329 Freq:59.98Hz Lamp Flux:88.2578x1 lm		
NAME: 3535RGB+2835-120D-120V-YK45	TYPE:LED Strip LIGHT	WEIGHT:1
SPEC.:609.6*20MM	DIM.: 609.6*20MM	SERIAL No.:1
MFR.: ESTAR	SUR.:609.6*20MM	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	.276	.157	.050	.269	.154	.049	.256	.147	.047	.244	.141	.045	.233	.135	.044		
2.0	.266	.146	.045	.260	.143	.044	.248	.138	.043	.238	.133	.042	.228	.129	.041		
3.0	.250	.133	.040	.245	.131	.039	.235	.127	.039	.225	.123	.038	.217	.120	.037		
4.0	.234	.121	.036	.229	.120	.035	.220	.117	.035	.212	.114	.034	.204	.111	.034		
5.0	.218	.111	.032	.214	.110	.032	.206	.107	.032	.198	.105	.031	.191	.102	.031		
6.0	.204	.102	.029	.200	.101	.029	.193	.099	.029	.186	.097	.028	.180	.095	.028		
7.0	.191	.094	.027	.187	.093	.027	.181	.092	.026	.175	.090	.026	.170	.088	.026		
8.0	.179	.087	.025	.176	.087	.024	.170	.085	.024	.165	.084	.024	.160	.082	.024		
9.0	.168	.081	.023	.166	.081	.023	.161	.079	.023	.156	.078	.022	.151	.077	.022		
10.0	.159	.076	.021	.156	.076	.021	.152	.074	.021	.147	.073	.021	.143	.072	.021		

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	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.178	.156	.137	.152	.134	.118	.104	.092	.082	.060	.053	.047	.019	.017	.015	
2.0	.169	.132	.101	.145	.114	.087	.099	.079	.061	.057	.046	.036	.018	.015	.012	
3.0	.161	.114	.077	.138	.098	.067	.095	.068	.047	.055	.040	.028	.018	.013	.009	
4.0	.153	.101	.061	.131	.087	.053	.090	.061	.037	.052	.035	.022	.017	.012	.007	
5.0	.146	.090	.049	.125	.078	.043	.086	.054	.030	.050	.032	.018	.016	.010	.006	
6.0	.139	.082	.041	.119	.071	.035	.082	.049	.025	.048	.029	.015	.015	.010	.005	
7.0	.132	.075	.034	.114	.065	.030	.079	.045	.021	.046	.027	.013	.015	.009	.004	
8.0	.126	.069	.030	.109	.060	.026	.075	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.120	.064	.026	.104	.056	.023	.072	.039	.016	.042	.023	.010	.014	.008	.003	
10.0	.115	.060	.023	.099	.052	.020	.069	.036	.014	.040	.022	.008	.013	.007	.003	

H(β) Range:-90 - 90DEG
H(β) Interval: 0.2DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:HW
Test Date:28 August 2020

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.421
Humidity:65.0%
Test Distance:9.900m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:119.80V I:0.0147A P:1.4696W PF:0.8329 Freq:59.98Hz Lamp Flux:88.2578x1 lm										
NAME: 3535RGB+2835-120D-120V-YK45					TYPE:LED Strip LIGHT			WEIGHT:1		
SPEC.:609.6*20MM					DIM.: 609.6*20MM			SERIAL No.:1		
MFR.: ESTAR					SUR.:609.6*20MM			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	24.1	25.5	24.3	25.7	25.9	23.7	25.1	23.9	25.3	25.5
3H	25.1	26.5	25.4	26.7	26.9	24.1	25.5	24.4	25.7	25.9
4H	25.6	26.8	25.9	27.1	27.3	24.2	25.5	24.5	25.7	26.0
6H	25.9	27.0	26.2	27.3	27.6	24.2	25.4	24.5	25.7	25.9
8H	26.0	27.1	26.3	27.4	27.7	24.2	25.3	24.5	25.6	25.9
12H	26.0	27.1	26.4	27.4	27.7	24.1	25.2	24.5	25.5	25.8
4H 2H	24.4	25.7	24.7	25.9	26.2	24.1	25.3	24.4	25.6	25.8
3H	25.6	26.7	26.0	27.0	27.3	24.7	25.7	25.0	26.0	26.3
4H	26.2	27.2	26.5	27.5	27.8	24.8	25.8	25.1	26.1	26.4
6H	26.6	27.5	27.0	27.8	28.2	24.8	25.7	25.2	26.0	26.4
8H	26.7	27.5	27.1	27.9	28.3	24.8	25.6	25.2	26.0	26.4
12H	26.8	27.5	27.2	27.9	28.3	24.8	25.5	25.2	25.9	26.3
8H 4H	26.2	27.0	26.6	27.4	27.7	24.9	25.7	25.3	26.1	26.4
6H	26.7	27.4	27.2	27.8	28.2	25.0	25.6	25.4	26.0	26.5
8H	26.9	27.5	27.4	28.0	28.4	25.0	25.6	25.4	26.0	26.4
12H	27.1	27.6	27.6	28.0	28.5	24.9	25.4	25.4	25.9	26.4
12H 4H	26.2	26.9	26.6	27.3	27.7	24.9	25.6	25.3	26.0	26.4
6H	26.7	27.3	27.2	27.7	28.2	25.0	25.6	25.5	26.0	26.5
8H	27.0	27.5	27.4	27.9	28.4	25.0	25.5	25.5	26.0	26.4
Variations with the observer position at spacings:										
S = 1.0H	+ 0.3 / - 0.3					+ 0.3 / - 0.4				
1.5H	+ 0.2 / - 0.4					+ 0.3 / - 0.5				
2.0H	+ 0.4 / - 0.5					+ 0.8 / - 0.8				

CIE Pub.117, 88.26 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -8.4)
Area: 0.012192 m2

H(β) Range:-90 - 90DEG
H(β) Interval: 0.2DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:HW
Test Date:28 August 2020

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.421
Humidity:65.0%
Test Distance:9.900m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:119.80V I:0.0147A P:1.4696W PF:0.8329 Freq:59.98Hz Lamp Flux:88.2578x1 lm		
NAME: 3535RGB+2835-120D-120V-YK45	TYPE:LED Strip LIGHT	WEIGHT:1
SPEC.:609.6*20MM	DIM.: 609.6*20MM	SERIAL No.:1
MFR.: ESTAR	SUR.:609.6*20MM	Shielding Angle:

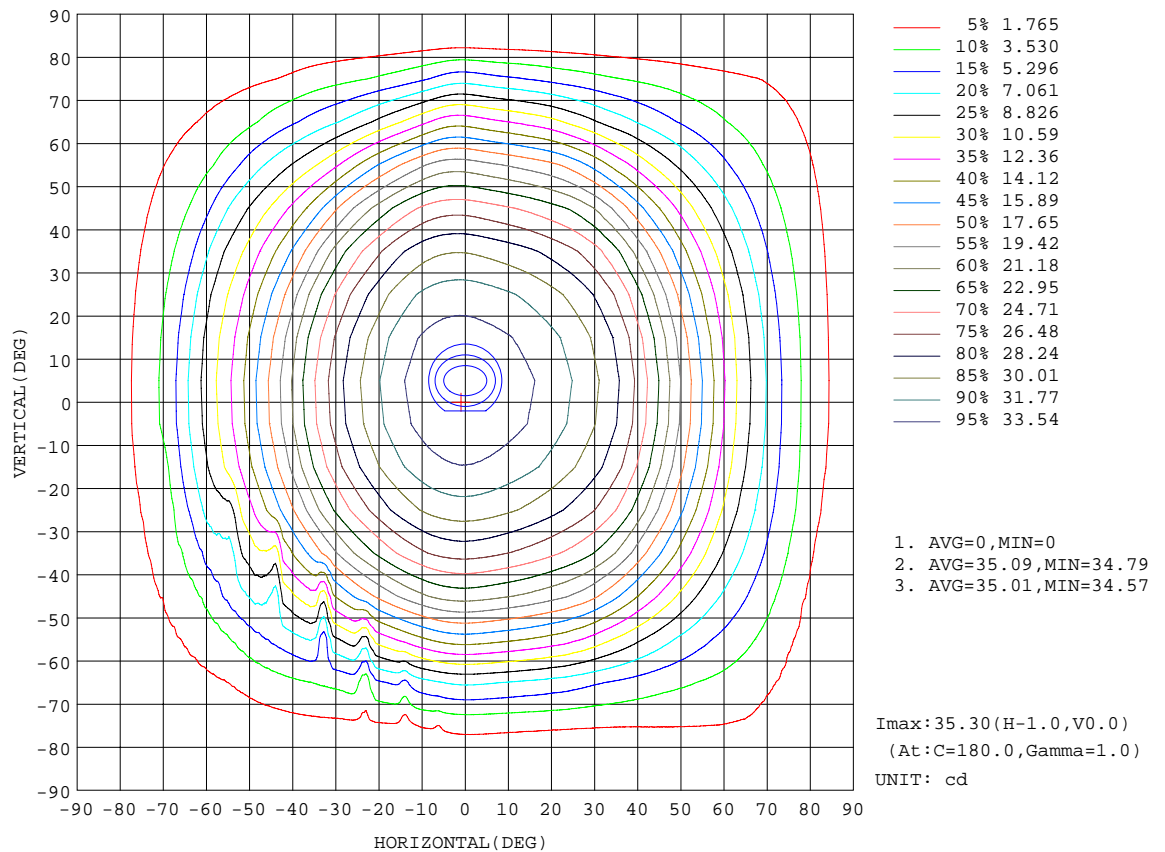
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	61	49	43	60	49	43	59	49	43	36
0.80	71	60	53	70	59	53	68	59	52	46
1.00	79	69	62	78	69	62	76	70	62	55
1.25	86	77	70	85	76	70	82	75	69	62
1.50	91	82	76	90	81	75	87	80	74	67
2.00	98	90	84	96	89	83	93	87	82	75
2.50	101	94	89	99	93	88	96	90	86	78
3.00	104	98	93	102	97	92	98	94	90	82
4.00	108	103	99	106	101	97	101	98	95	86
5.00	110	106	102	108	104	100	103	100	97	89
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

$H(\beta)$ Range:-90 - 90DEG
 $H(\beta)$ Interval: 0.2DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:HW
 Test Date:28 August 2020

$V(B)$ Range:-80 - 80DEG
 $V(B)$ Interval: 5.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.421
 Humidity:65.0%
 Test Distance:9.900m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:119.80V I:0.0147A P:1.4696W PF:0.8329 Freq:59.98Hz Lamp Flux:88.2578x1 lm		
NAME: 3535RGB+2835-120D-120V-YK45	TYPE:LED Strip LIGHT	WEIGHT:1
SPEC.:609.6*20MM	DIM.: 609.6*20MM	SERIAL No.:1
MFR.: ESTAR	SUR.:609.6*20MM	Shielding Angle:



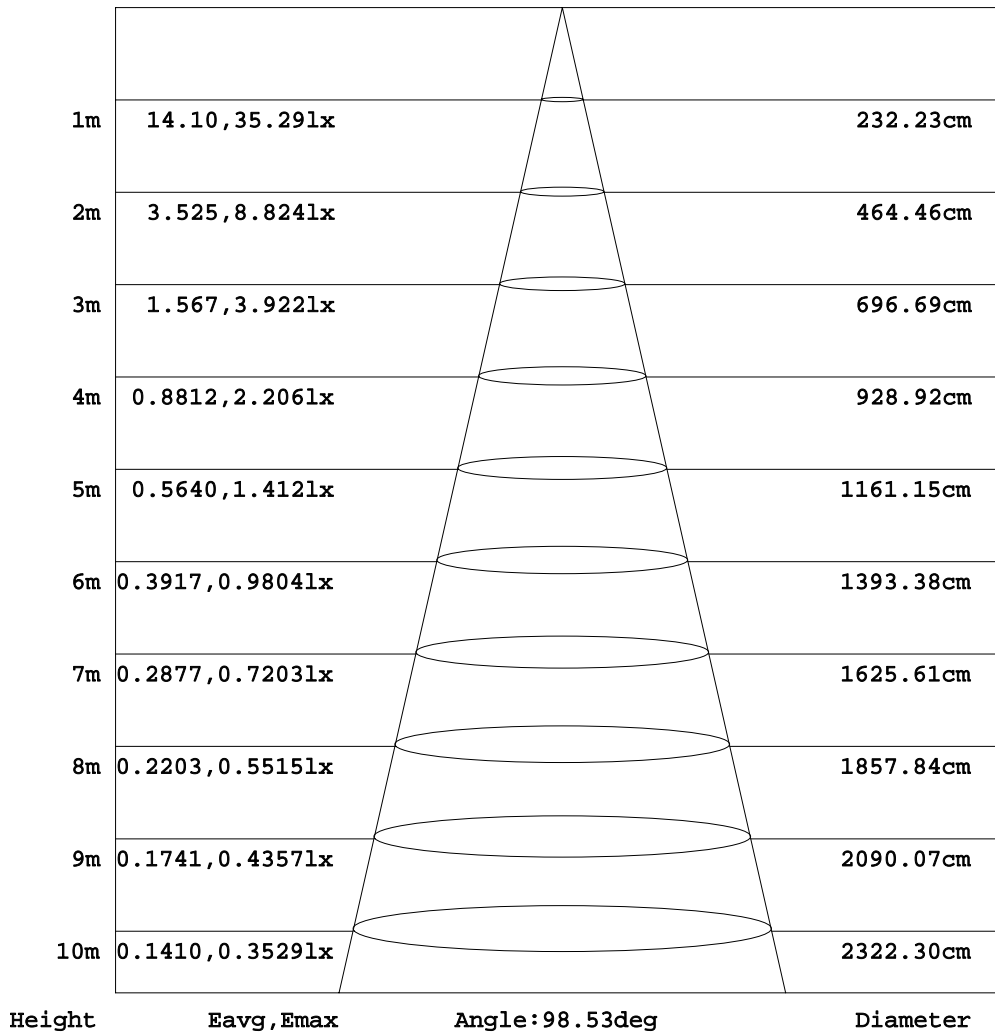
H(β) Range:-90 - 90DEG
H(β) Interval: 0.2DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:HW
Test Date:28 August 2020

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.421
Humidity:65.0%
Test Distance:9.900m [K=1.0000]
Remarks:

AAI Figure

Test:U:119.80V I:0.0147A P:1.4696W PF:0.8329 Freq:59.98Hz Lamp Flux:88.2578x1 lm		
NAME: 3535RGB+2835-120D-120V-YK45	TYPE:LED Strip LIGHT	WEIGHT:1
SPEC.:609.6*20MM	DIM.: 609.6*20MM	SERIAL No.:1
MFR.: ESTAR	SUR.:609.6*20MM	Shielding Angle:

Flux out:60.72 lm



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

H(β) Range:-90 - 90DEG
H(β) Interval: 0.2DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:HW
Test Date:28 August 2020

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.421
Humidity:65.0%
Test Distance:9.900m [K=1.0000]
Remarks:

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.421
Humidity:65.0%
Test Distance:9.900m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:119.80V I:0.0147A P:1.4696W PF:0.8329 Freq:59.98Hz Lamp Flux:88.2578x1 lm		
NAME: 3535RGB+2835-120D-120V-YK45	TYPE:LED Strip LIGHT	WEIGHT:1
SPEC.:609.6*20MM	DIM.: 609.6*20MM	SERIAL No.:1
MFR.: ESTAR	SUR.:609.6*20MM	Shielding Angle:

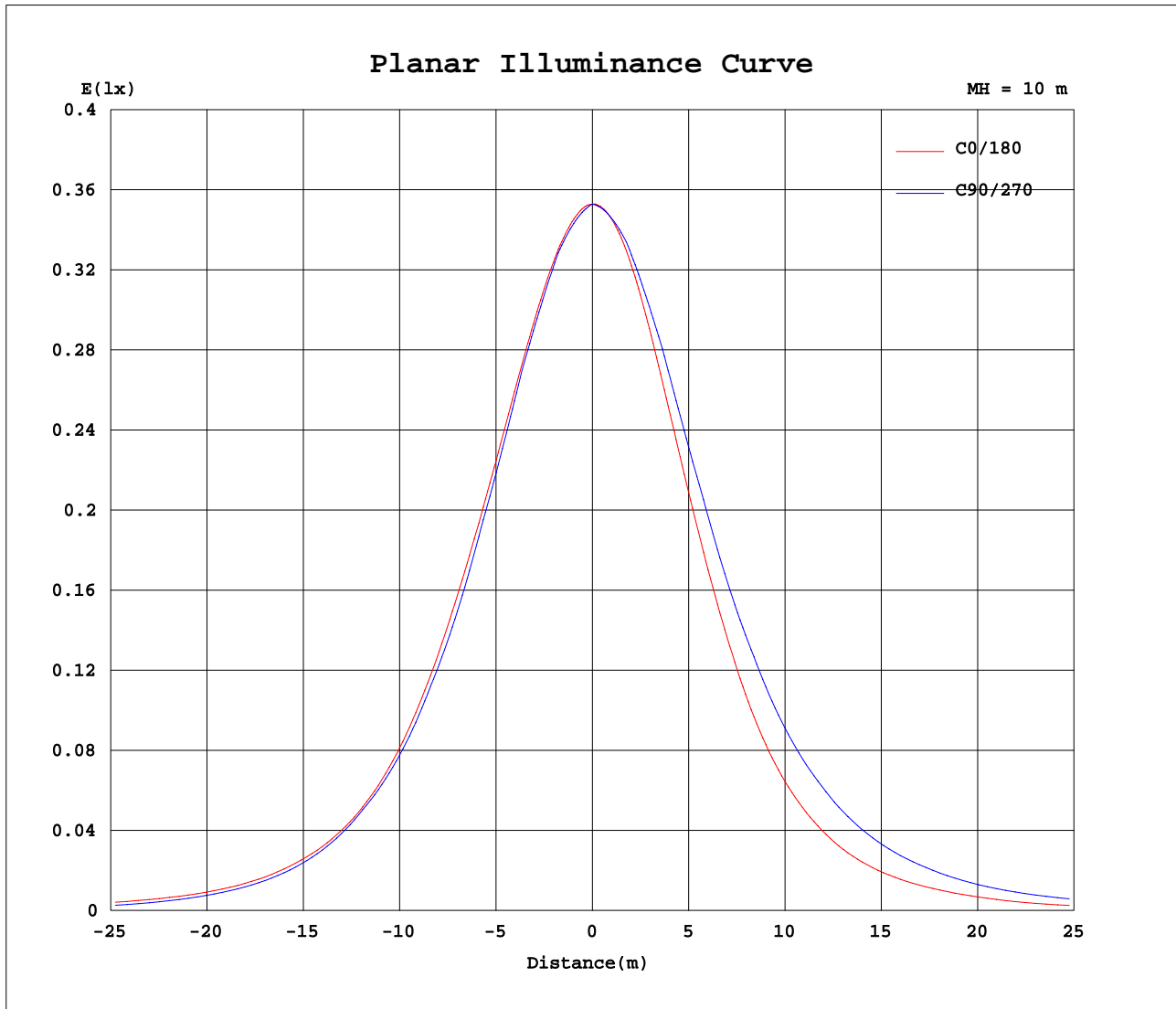
AvgL	cd/m2
L_0~180(65)av	1565
L_0~180(75)av	1112
L_0~180(85)av	1052
L_90~270(65)av	2015
L_90~270(75)av	1348
L_90~270(85)av	0
L_45(65)av	1626
L_45(75)av	976
L_45(85)av	413

Standard: GB/T 29293-2012

H(β) Range:-90 - 90DEG
H(β) Interval: 0.2DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:HW
Test Date:28 August 2020

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.421
Humidity:65.0%
Test Distance:9.900m [K=1.0000]
Remarks:

Planar Illuminance Curve



H(β) Range:-90 - 90DEG
H(β) Interval: 0.2DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:HW
Test Date:28 August 2020

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.421
Humidity:65.0%
Test Distance:9.900m [K=1.0000]
Remarks:

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.421
Humidity:65.0%
Test Distance:9.900m [K=1.0000]
Remarks:

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.421
Humidity:65.0%
Test Distance:9.900m [K=1.0000]
Remarks:

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.421
Humidity:65.0%
Test Distance:9.900m [K=1.0000]
Remarks:

V(B) Range:-80 - 80DEG
V(B) Interval: 5.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.00.421
Humidity:65.0%
Test Distance:9.900m [K=1.0000]
Remarks: