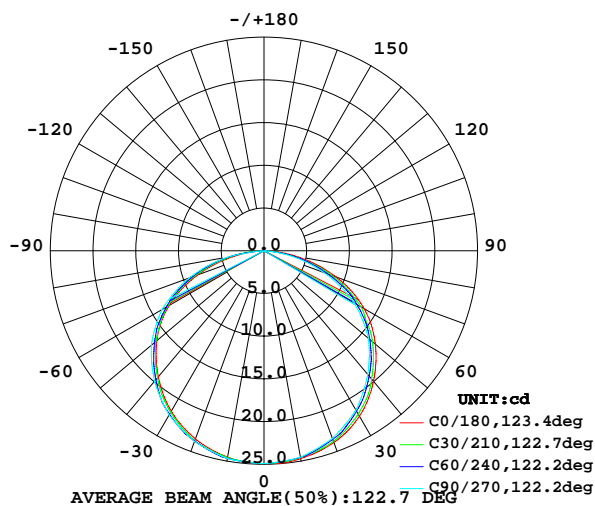


LUMINAIRE PHOTOMETRIC TEST REPORT

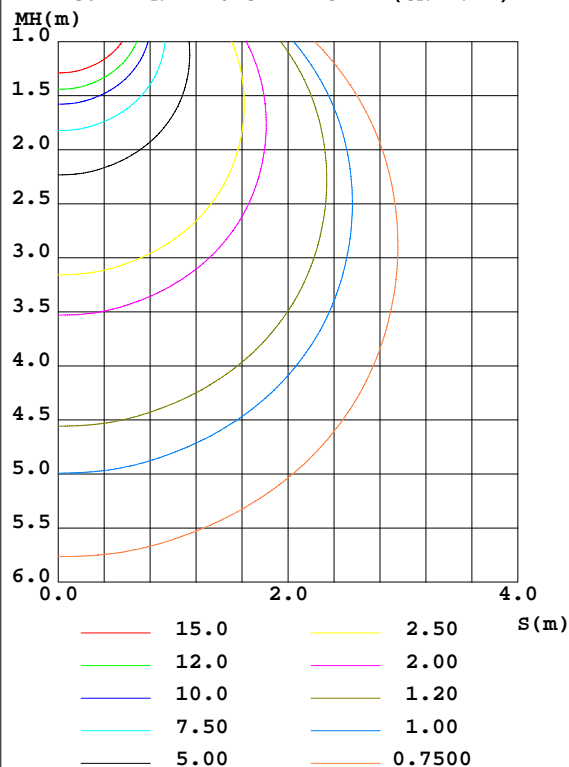
Test:U:24.00V I:0.1289A P:3.094W PF:1.000 Lamp Flux:78.3038x1 lm		
NAME: 3535RGB-60-24V	TYPE:LED Strip LIGHT	WEIGHT:1
SPEC.:1000*12MM	DIM.: 1000*12MM	SERIAL No.:1
MFR.: ESTAR	SUR.:1000*12MM	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 25.31 lm/W			
MODEL	R	I _{max} (cd)	24.93	S/MH(C0/180)	1.30
NOMINAL POWER(W)	23	LOR(%)	100.0	S/MH(C90/270)	1.32
RATED VOLTAGE(V)	24	TOTAL FLUX(lm)	78.304	η UP,DN(C0-180)	0.0,48.5
NOMINAL FLUX(lm)	78.3038	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,51.5
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	24	η down(%)	100.0	CIBSE SHR MAX	1.50

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



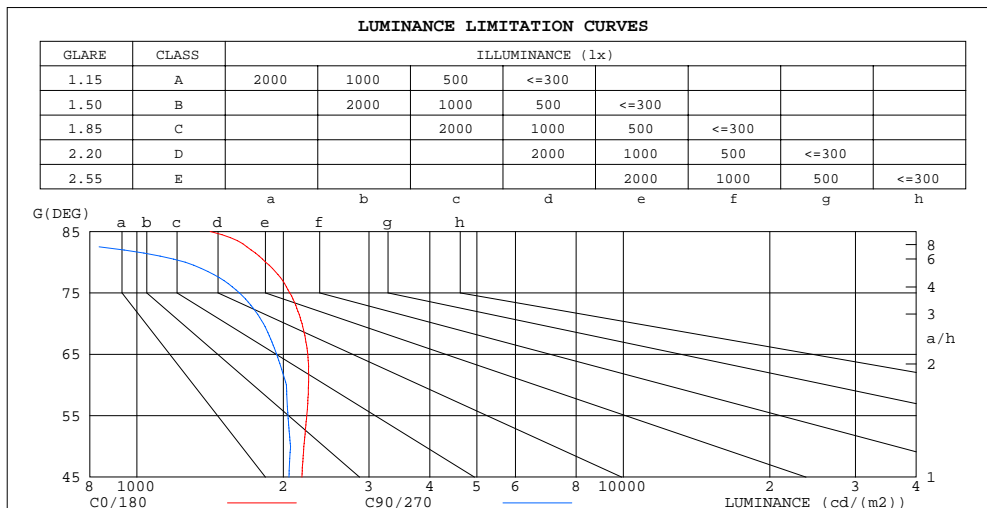
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:ZP
 Test Date:2020-07-14

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.292
 Humidity:65.0%
 Test Distance:9.900m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM AND LUMINANCE LIMITATION CURVES

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	$\%lum, lamp$
5	24.93	24.78	24.74	24.76	24.82	24.80	24.81	24.83	0- 5	0.5941	0.5941	0.76,0.76
10	24.71	24.55	24.55	24.50	24.52	24.62	24.70	24.65	5- 10	1.767	2.361	3.02,3.02
15	24.36	24.18	23.97	24.13	24.06	24.29	24.23	24.33	10- 15	2.893	5.254	6.71,6.71
20	23.89	23.58	23.38	23.42	23.45	23.67	23.76	23.84	15- 20	3.939	9.193	11.7,11.7
25	23.23	22.87	22.46	22.61	22.66	22.95	22.98	23.25	20- 25	4.878	14.07	18,18
30	22.36	21.89	21.54	21.57	21.70	22.01	22.21	22.40	25- 30	5.672	19.74	25.2,25.2
35	21.24	20.70	20.22	20.31	20.55	20.87	21.07	21.30	30- 35	6.297	26.04	33.3,33.3
40	19.93	19.38	18.90	18.95	19.24	19.61	19.94	20.09	35- 40	6.720	32.76	41.8,41.8
45	18.53	17.87	17.43	17.33	17.85	18.05	18.58	18.68	40- 45	6.950	39.71	50.7,50.7
50	17.00	16.37	15.97	15.74	16.37	16.50	17.21	17.27	45- 50	6.991	46.70	59.6,59.6
55	15.38	14.61	14.07	14.02	14.72	14.83	15.51	15.63	50- 55	6.837	53.54	68.4,68.4
60	13.52	12.69	12.18	12.18	12.82	13.10	13.80	13.91	55- 60	6.453	59.99	76.6,76.6
65	11.39	10.56	9.825	9.896	10.63	10.98	11.56	11.78	60- 65	5.816	65.81	84,84
70	8.971	8.072	7.473	7.542	8.235	8.731	9.318	9.455	65- 70	4.902	70.71	90.3,90.3
75	6.406	5.662	5.046	5.162	5.728	6.355	6.817	6.907	70- 75	3.764	74.47	95.1,95.1
80	3.832	3.413	2.619	2.942	3.271	3.995	4.315	4.450	75- 80	2.520	76.99	98.3,98.3
85	1.480	0.8656	0	0.6796	1.004	1.082	0	1.248	80- 85	1.191	78.18	99.8,99.8
90	0.0845	0	0	0	0.0830	0	0	0	85- 90	0.1206	78.30	100,100
95									90- 95			
100									95-100			
105									100-105			
110									105-110			
115									110-115			
120									115-120			
125									120-125			
130									125-130			
135									130-135			
140									135-140			
145									140-145			
150									145-150			
155									150-155			
160									155-160			
165									160-165			
170									165-170			
175									170-175			
180									175-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		



LUMINANCE cd/(m2)		
G(°)	C0/180	C90/270
85	1415	0
80	1839	1257
75	2062	1625
70	2186	1821
65	2246	1937
60	2253	2030
55	2235	2044
50	2204	2070
45	2184	2054

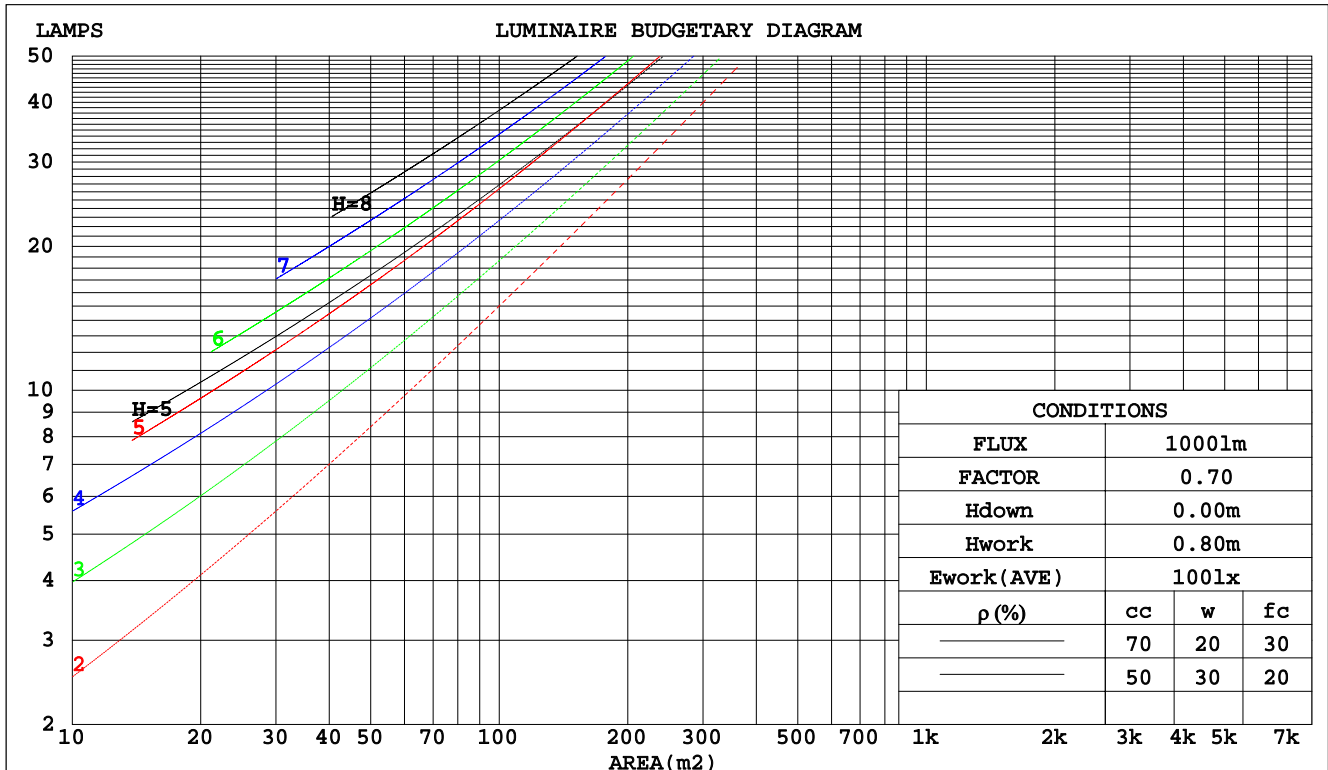
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:ZP
Test Date:2020-07-14

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.292
Humidity:65.0%
Test Distance:9.900m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:24.00V I:0.1289A P:3.094W PF:1.000 Lamp Flux:78.3038x1 lm		
NAME: 3535RGB-60-24V	TYPE:LED Strip LIGHT	WEIGHT:1
SPEC.:1000*12MM	DIM.: 1000*12MM	SERIAL No.:1
MFR.: ESTAR	SUR.:1000*12MM	PROTECTION 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	1.00
1.0	1.03	.99	.95	1.01	.97	.93	.97	.94	.91	.93	.90	.88	.89	.87	.85	.83
2.0	.90	.82	.77	.88	.81	.76	.84	.79	.74	.81	.76	.72	.78	.74	.71	.68
3.0	.78	.70	.63	.77	.69	.62	.74	.67	.61	.71	.65	.60	.68	.63	.59	.57
4.0	.69	.60	.53	.68	.59	.53	.65	.58	.52	.63	.56	.51	.60	.55	.50	.48
5.0	.61	.52	.45	.60	.52	.45	.58	.50	.44	.56	.49	.44	.54	.48	.43	.41
6.0	.55	.46	.39	.54	.45	.39	.52	.45	.39	.51	.44	.38	.49	.43	.38	.36
7.0	.50	.41	.35	.49	.40	.34	.47	.40	.34	.46	.39	.34	.45	.38	.34	.32
8.0	.45	.37	.31	.45	.36	.31	.43	.36	.30	.42	.35	.30	.41	.35	.30	.28
9.0	.42	.33	.27	.41	.33	.27	.40	.32	.27	.39	.32	.27	.38	.31	.27	.25
10.0	.38	.30	.25	.38	.30	.25	.37	.30	.25	.36	.29	.25	.35	.29	.24	.23



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:ZP
Test Date:2020-07-14

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.292
Humidity:65.0%
Test Distance:9.900m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:24.00V I:0.1289A P:3.094W PF:1.000 Lamp Flux:78.3038x1 lm		
NAME: 3535RGB-60-24V	TYPE:LED Strip LIGHT	WEIGHT:1
SPEC.:1000*12MM	DIM.: 1000*12MM	SERIAL No.:1
MFR.: ESTAR	SUR.:1000*12MM	PROTECTION 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	.318	.181	.057	.311	.177	.056	.298	.171	.055	.285	.165	.053	.274	.159	.051		
2.0	.300	.164	.050	.294	.162	.050	.282	.157	.049	.271	.152	.048	.261	.148	.047		
3.0	.277	.148	.044	.272	.146	.044	.261	.142	.043	.252	.138	.042	.243	.134	.042		
4.0	.256	.133	.039	.251	.131	.039	.241	.128	.038	.233	.125	.038	.225	.122	.037		
5.0	.236	.120	.035	.231	.119	.035	.223	.116	.034	.215	.114	.034	.208	.111	.033		
6.0	.218	.109	.031	.214	.108	.031	.207	.106	.031	.200	.104	.031	.194	.102	.030		
7.0	.203	.100	.028	.199	.099	.028	.193	.097	.028	.187	.096	.028	.181	.094	.028		
8.0	.189	.092	.026	.186	.092	.026	.180	.090	.026	.175	.088	.026	.169	.087	.025		
9.0	.177	.086	.024	.174	.085	.024	.169	.083	.024	.164	.082	.024	.159	.081	.023		
10.0	.166	.080	.022	.164	.079	.022	.159	.078	.022	.154	.077	.022	.150	.076	.022		

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	.181	.156	.134	.155	.134	.115	.106	.092	.080	.061	.053	.046	.020	.017	.015	
2.0	.173	.132	.097	.148	.114	.084	.102	.079	.058	.059	.046	.034	.019	.015	.011	
3.0	.166	.114	.073	.142	.099	.064	.098	.069	.045	.056	.040	.026	.018	.013	.009	
4.0	.158	.101	.057	.136	.087	.050	.093	.061	.035	.054	.036	.021	.017	.012	.007	
5.0	.151	.091	.046	.130	.079	.040	.089	.055	.028	.052	.032	.017	.017	.011	.006	
6.0	.144	.082	.038	.124	.071	.034	.085	.050	.024	.049	.029	.014	.016	.010	.005	
7.0	.137	.076	.033	.118	.066	.028	.081	.046	.020	.047	.027	.012	.015	.009	.004	
8.0	.130	.070	.028	.112	.061	.025	.078	.043	.017	.045	.025	.010	.015	.008	.003	
9.0	.124	.065	.025	.107	.056	.022	.074	.040	.015	.043	.023	.009	.014	.008	.003	
10.0	.118	.061	.022	.102	.053	.019	.071	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:ZP
Test Date:2020-07-14

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.292
Humidity:65.0%
Test Distance:9.900m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:24.00V I:0.1289A P:3.094W PF:1.000 Lamp Flux:78.3038x1 lm											
NAME: 3535RGB-60-24V						TYPE:LED Strip LIGHT		WEIGHT:1			
SPEC.:1000*12MM						DIM.: 1000*12MM		SERIAL No.:1			
MFR.: ESTAR						SUR.:1000*12MM		PROTECTION 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		15.8	17.4	16.1	17.6	17.8	15.5	17.0	15.7	17.2	17.4
3H		17.6	19.0	17.9	19.2	19.5	17.0	18.5	17.3	18.7	18.9
4H		18.2	19.6	18.5	19.8	20.1	17.6	19.0	17.9	19.2	19.5
6H		18.6	19.9	18.9	20.2	20.4	17.9	19.2	18.3	19.5	19.8
8H		18.7	19.9	19.0	20.2	20.5	18.0	19.2	18.3	19.5	19.8
12H		18.7	20.0	19.1	20.2	20.6	17.9	19.1	18.3	19.4	19.7
4H 2H		16.4	17.8	16.8	18.1	18.3	16.2	17.5	16.5	17.8	18.1
3H		18.3	19.5	18.7	19.8	20.2	17.9	19.1	18.2	19.4	19.7
4H		19.1	20.2	19.4	20.5	20.8	18.6	19.7	19.0	20.0	20.4
6H		19.5	20.5	20.0	20.9	21.3	19.0	20.0	19.4	20.4	20.7
8H		19.7	20.6	20.1	21.0	21.4	19.1	20.0	19.5	20.4	20.8
12H		19.8	20.6	20.2	21.0	21.4	19.1	19.9	19.5	20.3	20.7
8H 4H		19.3	20.2	19.7	20.6	21.0	18.9	19.8	19.3	20.2	20.6
6H		19.9	20.7	20.4	21.1	21.5	19.5	20.3	20.0	20.7	21.1
8H		20.2	20.8	20.6	21.3	21.7	19.6	20.3	20.1	20.7	21.2
12H		20.3	20.9	20.8	21.3	21.8	19.6	20.2	20.1	20.7	21.1
12H 4H		19.3	20.2	19.7	20.5	20.9	18.9	19.8	19.3	20.1	20.5
6H		20.0	20.7	20.5	21.1	21.5	19.6	20.2	20.0	20.7	21.1
8H		20.2	20.8	20.7	21.3	21.8	19.7	20.3	20.2	20.8	21.2
Variations with the observer position at spacings:											
S = 1.0H		+ 0.1 / - 0.1					+ 0.2 / - 0.2				
1.5H		+ 0.1 / - 0.2					+ 0.2 / - 0.3				
2.0H		+ 0.3 / - 0.4					+ 0.2 / - 0.4				

CIE Pub.117 Corrected 78.30 lm Total Lamp Luminous Flux.(8log(F/F0) = -8.8)

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:ZP
Test Date:2020-07-14

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.292
Humidity:65.0%
Test Distance:9.900m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:24.00V I:0.1289A P:3.094W PF:1.000 Lamp Flux:78.3038x1 lm		
NAME: 3535RGB-60-24V	TYPE:LED Strip LIGHT	WEIGHT:1
SPEC.:1000*12MM	DIM.: 1000*12MM	SERIAL No.:1
MFR.: ESTAR	SUR.:1000*12MM	PROTECTION 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	56	44	37	55	44	37	54	43	37	30
0.80	66	54	46	65	54	46	63	53	46	39
1.00	74	63	55	73	62	55	71	64	55	47
1.25	82	71	63	80	70	63	77	69	62	55
1.50	87	77	69	85	76	69	82	74	68	60
2.00	94	85	78	92	84	78	89	82	76	68
2.50	98	90	84	96	89	83	92	86	81	73
3.00	102	94	89	99	93	88	95	90	86	77
4.00	106	100	95	103	98	94	99	95	91	82
5.00	108	103	99	106	101	98	101	98	95	85
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:ZP
Test Date:2020-07-14

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.292
Humidity:65.0%
Test Distance:9.900m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:24.00V I:0.1289A P:3.094W PF:1.000 Lamp Flux:78.3038x1 lm		
NAME: 3535RGB-60-24V	TYPE:LED Strip LIGHT	WEIGHT:1
SPEC.:1000*12MM	DIM.: 1000*12MM	SERIAL No.:1
MFR.: ESTAR	SUR.:1000*12MM	PROTECTION ANGLE:

Conical surface Flux(90deg):

39.709 lm

%lum = 50.7%

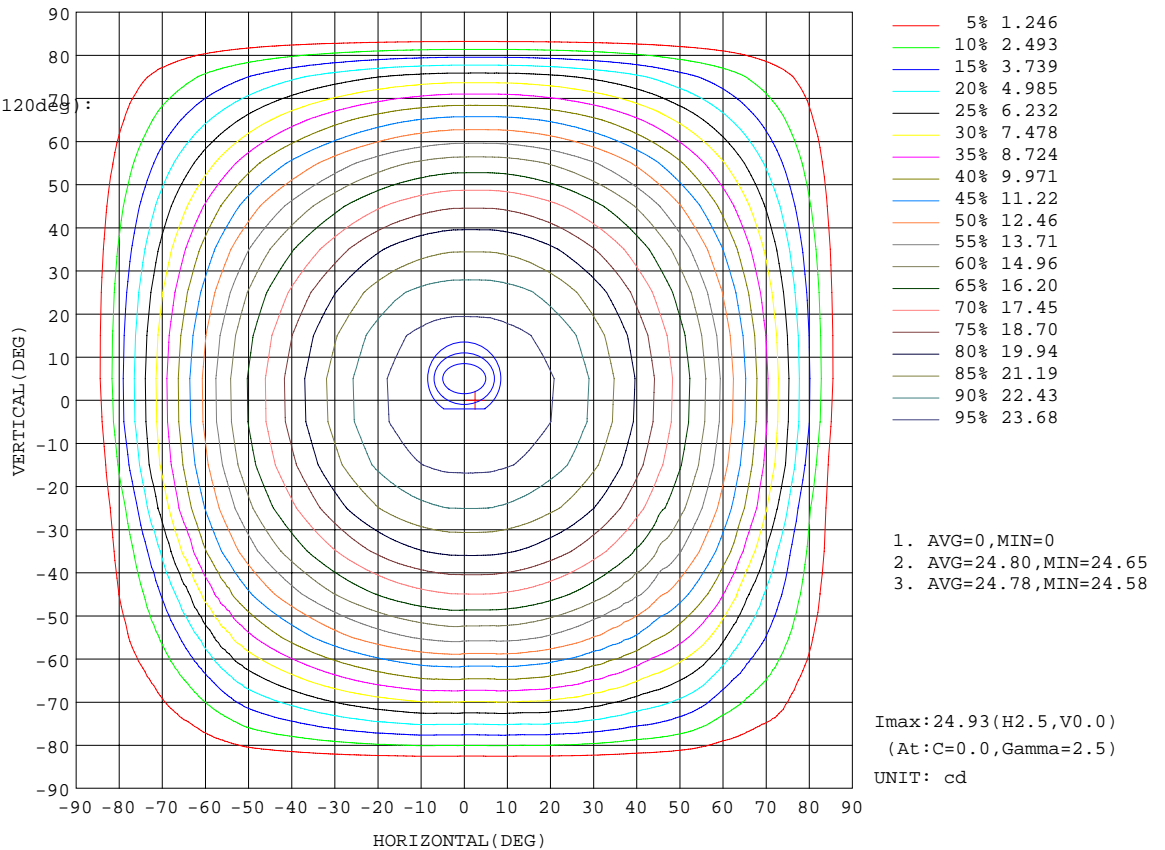
%lamp = 50.7%

Conical surface Flux(120deg):

59.99 lm

%lum = 76.6%

%lamp = 76.6%

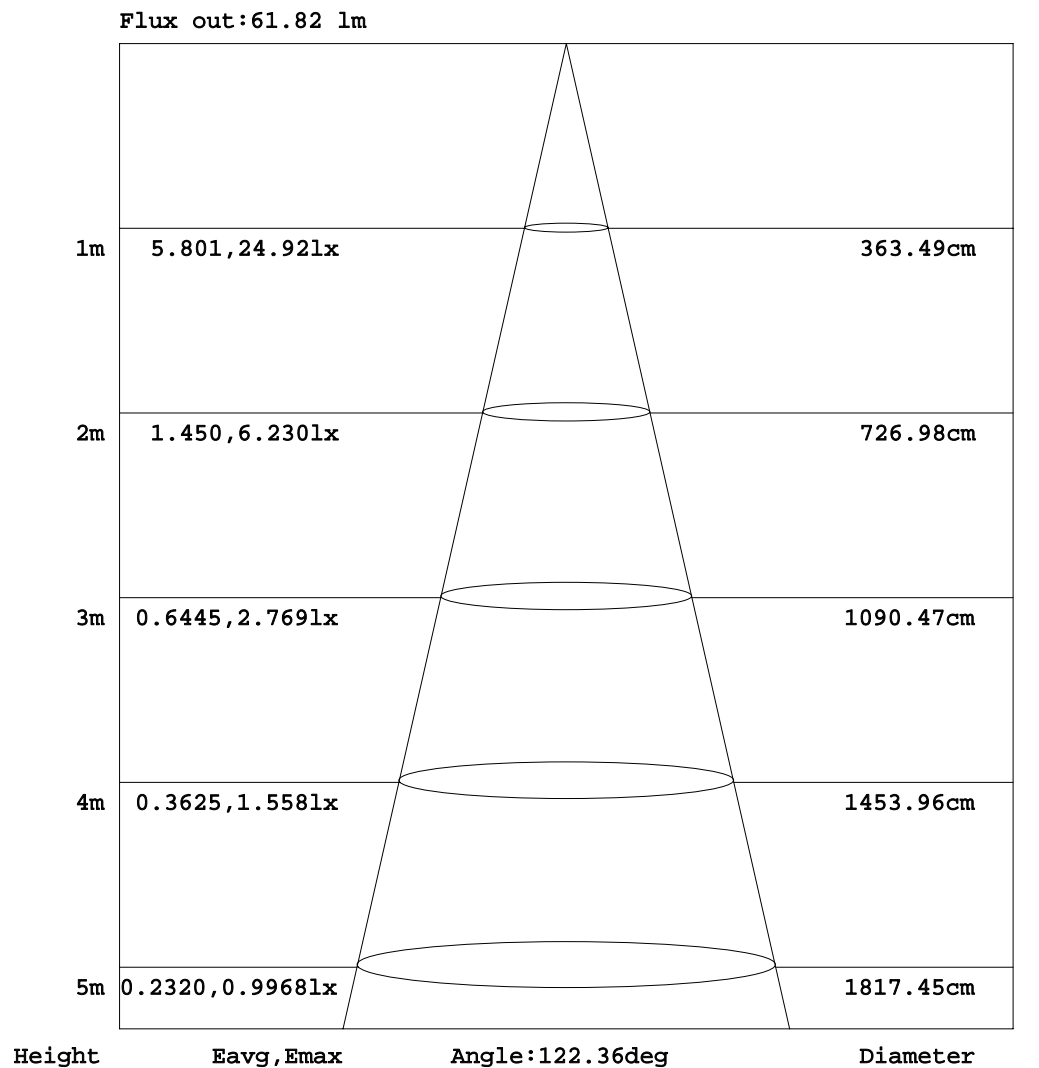


C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:ZP
Test Date:2020-07-14

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.292
Humidity:65.0%
Test Distance:9.900m [K=1.0000]
Remarks:

AAI Figure

Test:U:24.00V I:0.1289A P:3.094W PF:1.000 Lamp Flux:78.3038x1 lm		
NAME: 3535RGB-60-24V	TYPE:LED Strip LIGHT	WEIGHT:1
SPEC.:1000*12MM	DIM.: 1000*12MM	SERIAL No.:1
MFR.: ESTAR	SUR.:1000*12MM	PROTECTION ANGLE:



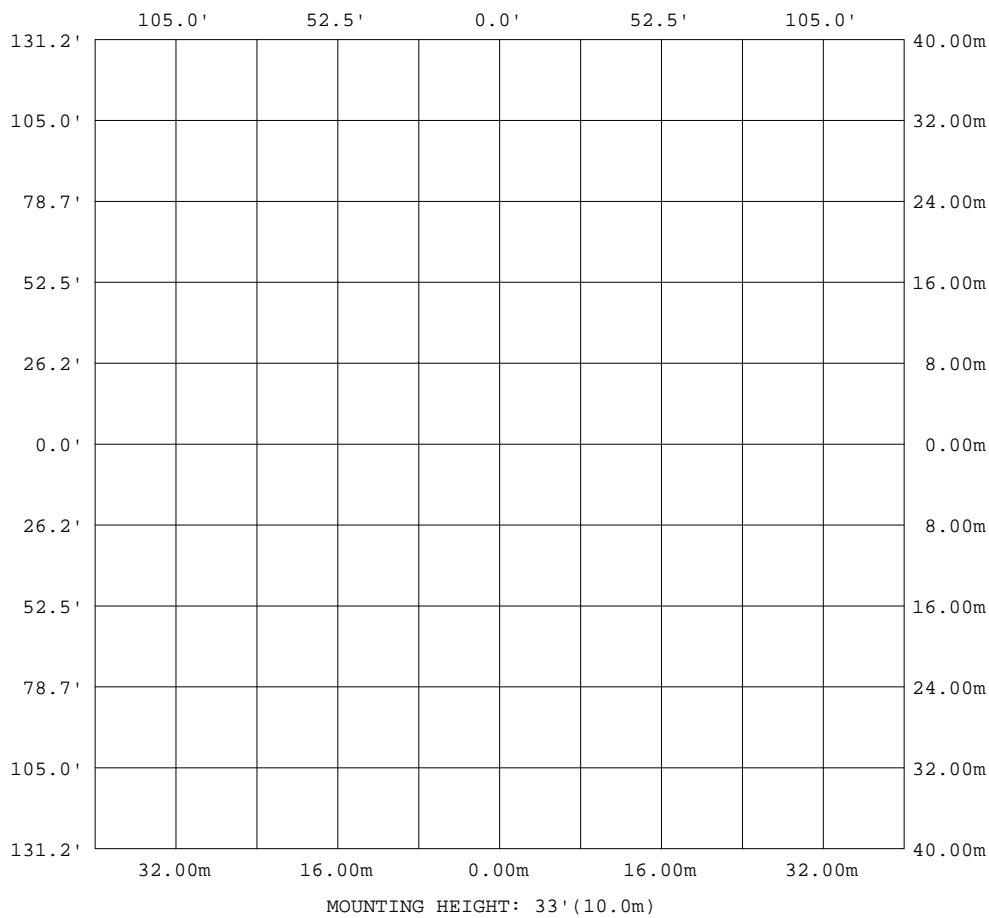
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:ZP
Test Date:2020-07-14

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.292
Humidity:65.0%
Test Distance:9.900m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:24.00V I:0.1289A P:3.094W PF:1.000 Lamp Flux:78.3038x1 lm		
NAME: 3535RGB-60-24V	TYPE:LED Strip LIGHT	WEIGHT:1
SPEC.:1000*12MM	DIM.: 1000*12MM	SERIAL No.:1
MFR.: ESTAR	SUR.:1000*12MM	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:ZP
 Test Date:2020-07-14

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.292
 Humidity:65.0%
 Test Distance:9.900m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:24.00V I:0.1289A P:3.094W PF:1.000 Lamp Flux:78.3038x1 lm		
NAME: 3535RGB-60-24V	TYPE:LED Strip LIGHT	WEIGHT:1
SPEC.:1000*12MM	DIM.: 1000*12MM	SERIAL No.:1
MFR.: ESTAR	SUR.:1000*12MM	PROTECTION ANGLE:

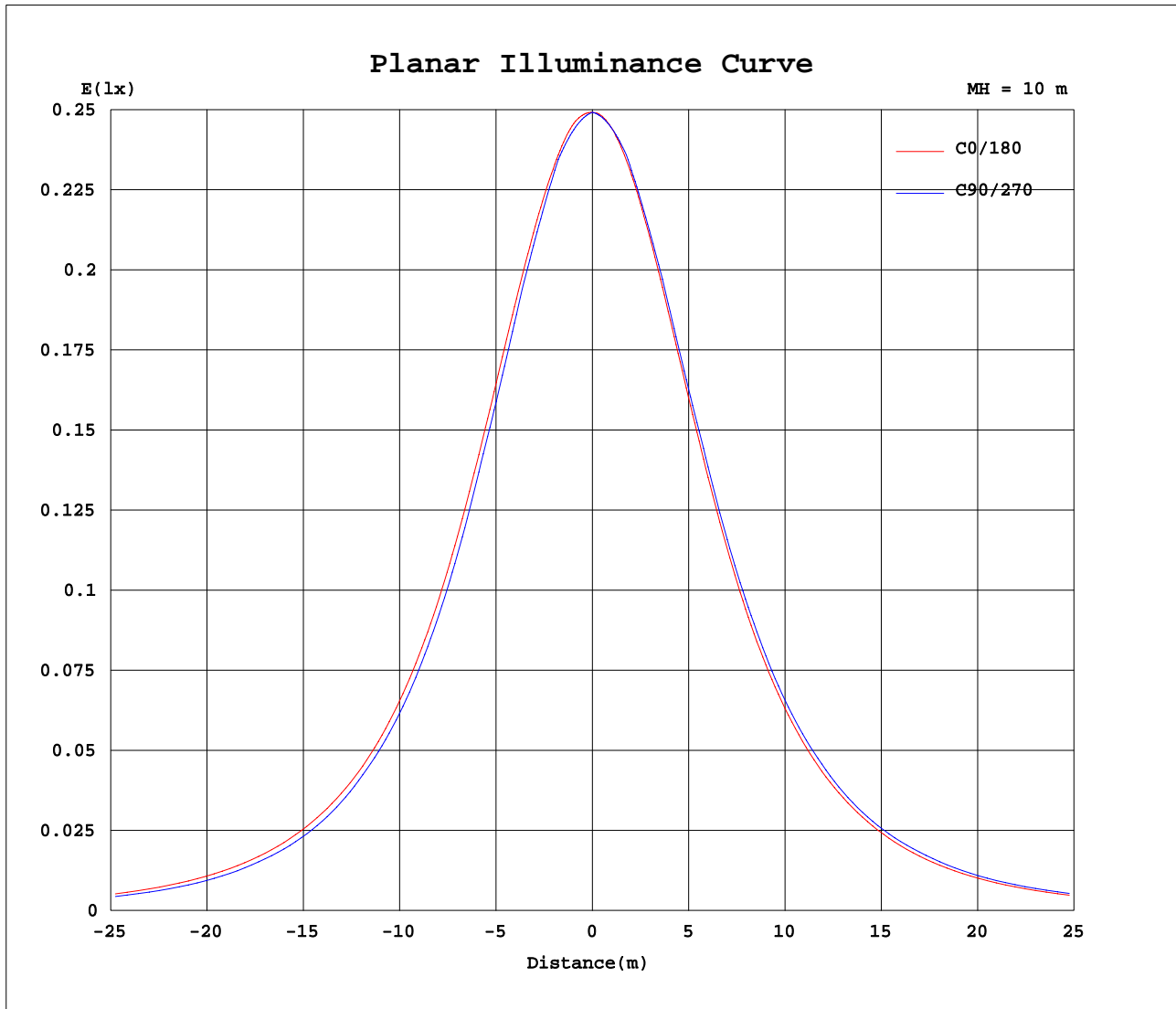
AvgL	cd/m2
L_0~180(65)av	2171
L_0~180(75)av	1953
L_0~180(85)av	1187
L_90~270(65)av	2108
L_90~270(75)av	1910
L_90~270(85)av	0
L_45(65)av	2130
L_45(75)av	1939
L_45(85)av	926

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:ZP
 Test Date:2020-07-14

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.292
 Humidity:65.0%
 Test Distance:9.900m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: MEDIUM
Temperature: 25.3DEG
Operators: ZP
Test Date: 2020-07-14

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.292
Humidity: 65.0%
Test Distance: 9.900m [K=1.0000]
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.292
Humidity:65.0%
Test Distance:9.900m [K=1.0000]
Remarks:

```

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.292
Humidity:65.0%
Test Distance:9.900m [K=1.0000]
Remarks:

```

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.292
Humidity:65.0%
Test Distance:9.900m [K=1.0000]
Remarks:

```

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.292
Humidity:65.0%
Test Distance:9.900m [K=1.0000]
Remarks:

```