

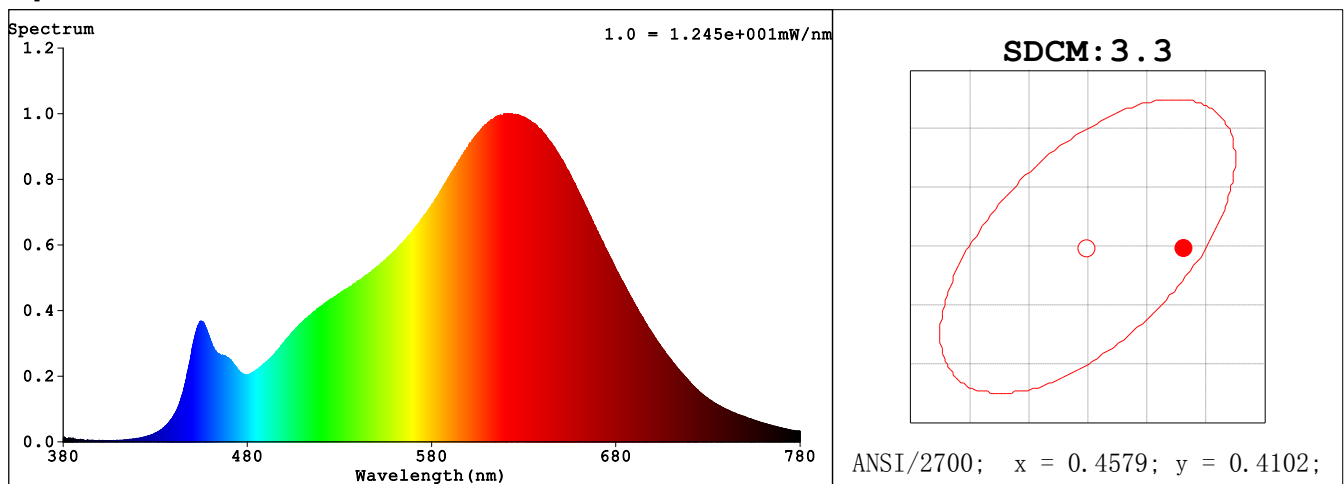
Spectrum Test Report

Sample	:		Date	:	2019-12-07
Specification	:	SM5.5S10927UNVTW	Sam. Status	:	
Sample No.	:	1	Standard	:	
Manufacturer	:	RAB LIGHTING INC.	Instrument	:	HaasSuite(EVERFINE)
Assessor	:	damin			
Remark	:	---	Test by	:	DAMIN
Device SN	:	9#			

Test Condition

Temperature	:	24.5Deg	RH	:	65.0%
WL Range	:	380nm-780nm	IP	:	51538 (79%)
Test Mode	:	Fast Test	T	:	308 ms
Sensitivity	:	High			

Spectrum



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.4633$ $y = 0.4102$ / $u' = 0.2649$ $v' = 0.5277$ ($duv = -4.18e-04$)
 CCT= 2649K Prcp WL: $L_d = 584.6nm$ Purity=62.2%
 Peak WL: $L_p = 621nm$ FWHM: =139.6nm Ratio:R=27.1% G=70.3% B=2.6%
 Render Index: $R_a = 93.2$

EEl: 0.20027 A

R1 =94 R2 =99 R3 =97 R4 =93 R5 =95 R6 =97 R7 =90
 R8 =80 R9 =60 R10=97 R11=96 R12=86 R13=96 R14=99 R15=89
 LEVEL:OUT WHITE:ANSI_2700K

Photometric & Radiometric Parameters

Flux = 569.83 lm Eff. : 58.15 lm/W Fe = 2.0261 W Scotopic:734.98 S/P:1.2898

Electrical parameters

V = 120.02 V I = 0.08232 A P = 9.799 W PF = 0.9917 F=59.98 Hz

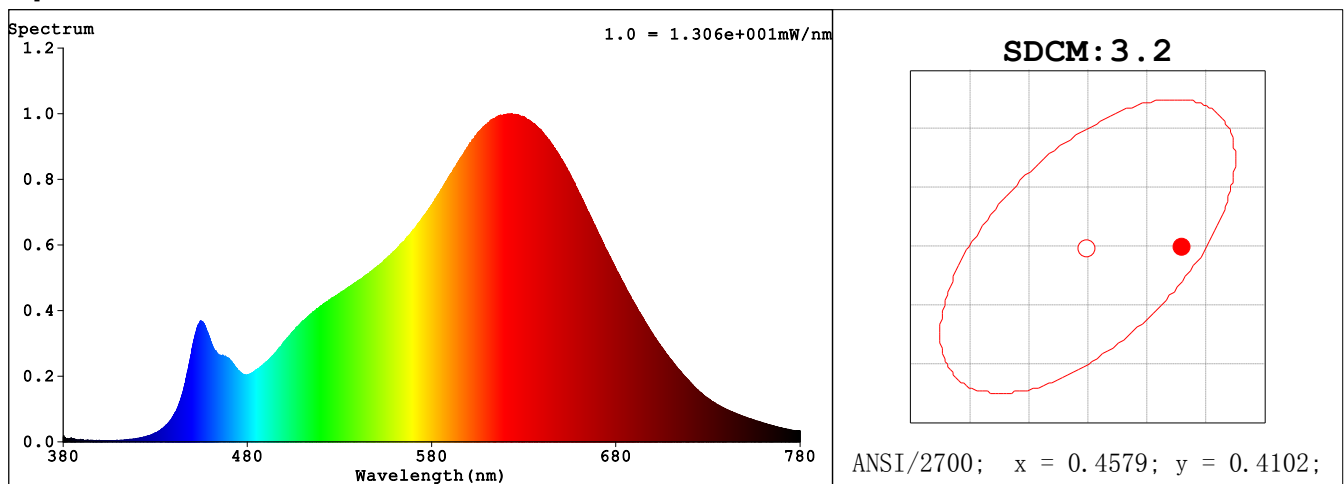
Spectrum Test Report

Sample	:		Date	:	2019-12-07
Specification	:	SM5.5S10927UNVTW	Sam. Status	:	
Sample No.	:	277 1	Standard	:	
Manufacturer	:	RAB LIGHTING INC.	Instrument	:	HaasSuite(EVERFINE)
Assessor	:	damin			
Remark	:	---	Test by	:	DAMIN
Device SN	:	9#			

Test Condition

Temperature	:	24.5Deg	RH	:	65.0%
WL Range	:	380nm-780nm	IP	:	54017 (82%)
Test Mode	:	Fast Test	T	:	308 ms
Sensitivity	:	High			

Spectrum



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.4632$ $y = 0.4103$ / $u' = 0.2648$ $v' = 0.5277$ ($duv = -3.77e-04$)
 CCT= 2652K Prcp WL: Ld=584.6nm Purity=62.2%
 Peak WL: Lp=624nm FWHM: =140.1nm Ratio:R=27.0% G=70.3% B=2.6%
 Render Index: Ra = 93.2

EEl: 0.20990 A

R1 =94 R2 =99 R3 =97 R4 =93 R5 =95 R6 =97 R7 =90
 R8 =80 R9 =59 R10=97 R11=96 R12=86 R13=96 R14=99 R15=89
 LEVEL:OUT WHITE:ANSI_2700K

Photometric & Radiometric Parameters

Flux = 598.10 lm Eff. : 56.06 lm/W Fe = 2.1261 W Scotopic:771.62 S/P:1.2901

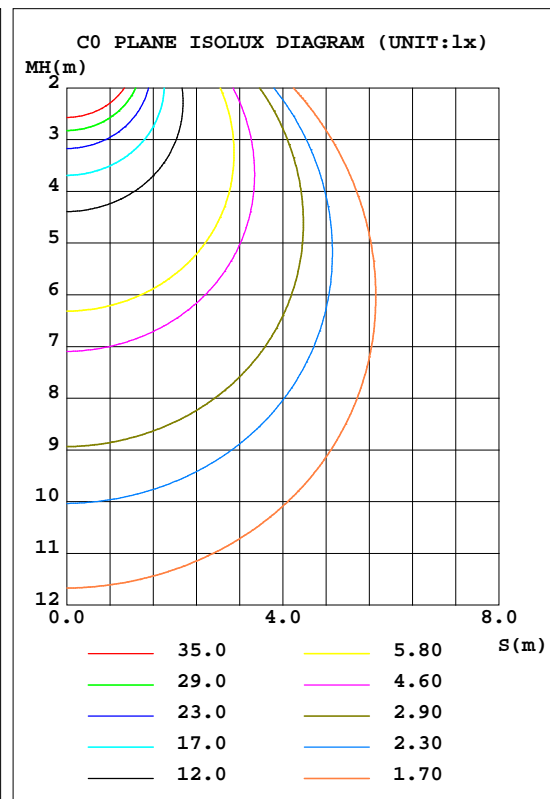
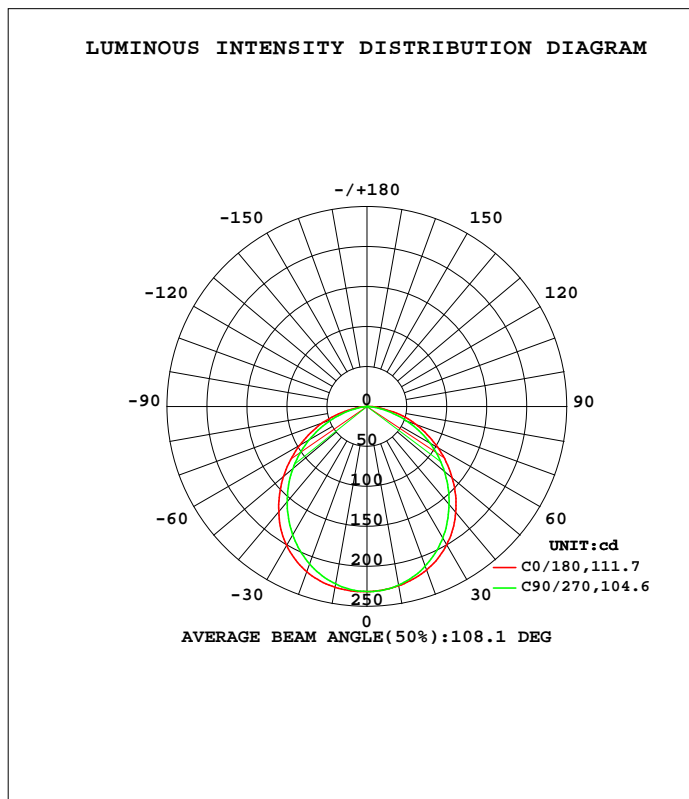
Electrical parameters

V = 277.22 V I = 0.04218 A P = 10.67 W PF = 0.9126 F=59.98 Hz

LUMINAIRE PHOTOMETRIC TEST REPORT

NAME:	TYPE:SM5.5S10927UNVTW	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC.	SUR.:21cm*16cm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 63.16 lm/W			
MODEL		I _{max} (cd)	231.6	S/MH(C0/180)	1.28
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	1.20
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	625.90	h UP, DN(C0-180)	0.0,51.1
NOMINAL FLUX(lm)	625.903	CIE CLASS	DIRECT	h UP, DN(C180-360)	0.0,48.9
LAMPS INSIDE	1	h up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	120	h down(%)	100.0	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-11-29

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:3.200m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

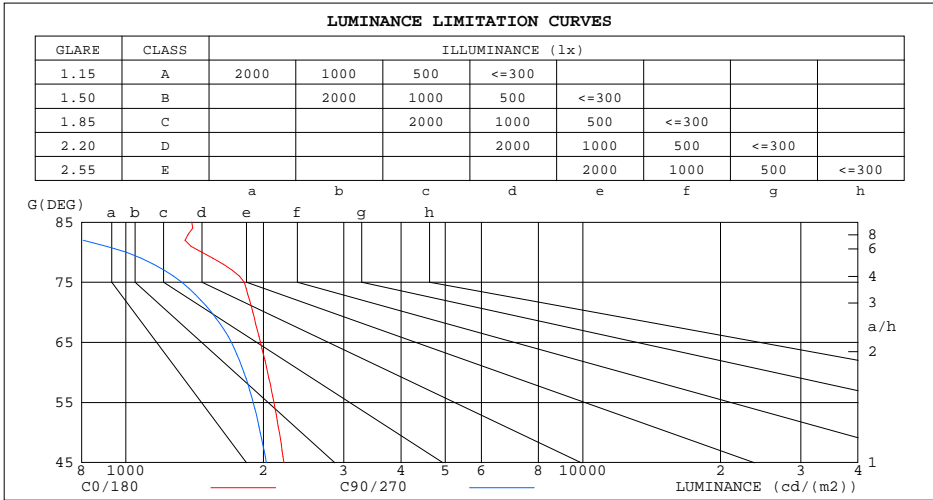
g	C0	C90	C180	C270					g	F zone	F total	%lum,lamp
10	227.7	227.0	229.6	225.4					0- 10	21.90	21.90	3.5,3.5
20	217.6	212.7	220.1	209.7					10- 20	62.72	84.62	13.5,13.5
30	199.6	189.9	200.9	185.7					20- 30	94.69	179.3	28.6,28.6
40	172.9	159.9	171.7	155.4					30- 40	112.7	292.1	46.7,46.7
50	139.3	126.5	136.3	121.1					40- 50	114.4	406.5	64.9,64.9
60	102.2	90.70	97.36	83.85					50- 60	100.5	507.0	81,81
70	64.87	52.68	58.40	45.29					60- 70	73.54	580.5	92.7,92.7
80	25.45	17.40	17.28	12.13					70- 80	38.37	618.9	98.9,98.9
90	0.1853	0.1788	0.0455	0.2007					80- 90	7.034	625.9	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		

C Range: 0 - 360DEG
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 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-11-29

g Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:3.200m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

NAME:	TYPE:SM5.5S10927UNVTW	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC.	SUR.:21cm*16cm	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	1395	389
80	1466	1002
75	1816	1326
70	1897	1540
65	1971	1702
60	2044	1814
55	2110	1901
50	2168	1969
45	2217	2031

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-11-29

G Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:3.200m [K=1.0000]
 Remarks:

WEC AND CCEC

NAME:	TYPE:SM5.5S10927UNVTW	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC.	SUR.:21cm*16cm	Shielding Angle:

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
rfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.295	.168	.053	.288	.164	.052	.275	.158	.050	.263	.152	.049	.252	.146	.047	
2.0	.282	.154	.047	.276	.152	.047	.264	.147	.046	.253	.142	.044	.243	.138	.043	
3.0	.263	.140	.042	.257	.138	.041	.247	.134	.041	.237	.130	.040	.229	.127	.039	
4.0	.244	.127	.037	.239	.125	.037	.230	.122	.036	.221	.119	.036	.213	.116	.035	
5.0	.226	.115	.033	.222	.114	.033	.214	.111	.033	.206	.109	.032	.199	.106	.032	
6.0	.210	.105	.030	.206	.104	.030	.199	.102	.030	.192	.100	.029	.186	.098	.029	
7.0	.196	.097	.027	.193	.096	.027	.186	.094	.027	.180	.092	.027	.174	.091	.027	
8.0	.183	.090	.025	.180	.089	.025	.175	.087	.025	.169	.086	.025	.164	.084	.025	
9.0	.172	.083	.023	.169	.083	.023	.164	.081	.023	.159	.080	.023	.155	.079	.023	
10.0	.162	.078	.022	.159	.077	.021	.155	.076	.021	.150	.075	.021	.146	.074	.021	

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
rfc	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	.179	.156	.136	.153	.134	.117	.105	.092	.081	.060	.053	.047	.019	.017	.015	
2.0	.171	.132	.099	.146	.114	.086	.100	.079	.060	.058	.046	.035	.019	.015	.011	
3.0	.163	.114	.075	.140	.099	.065	.096	.068	.046	.055	.040	.027	.018	.013	.009	
4.0	.155	.101	.059	.133	.087	.051	.092	.061	.036	.053	.036	.021	.017	.012	.007	
5.0	.148	.090	.048	.127	.078	.042	.088	.055	.029	.051	.032	.017	.016	.010	.006	
6.0	.141	.082	.040	.121	.071	.035	.084	.050	.024	.049	.029	.015	.016	.010	.005	
7.0	.134	.075	.034	.116	.065	.029	.080	.046	.021	.046	.027	.012	.015	.009	.004	
8.0	.128	.069	.029	.110	.060	.025	.076	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.122	.064	.025	.105	.056	.022	.073	.039	.016	.042	.023	.009	.014	.008	.003	
10.0	.116	.060	.023	.100	.052	.020	.070	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-11-29

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:3.200m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

NAME:		TYPE:SM5.5S10927UNVTW					WEIGHT:				
SPEC.:		DIM.:					SERIAL No.:				
MFR.: RAB LIGHTING INC.		SUR.:21cm*16cm					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	17.2	18.7	17.5	18.9	19.1	16.7	18.2	17.0	18.4	18.6
	3H	18.7	20.1	19.0	20.3	20.6	18.1	19.5	18.4	19.7	19.9
	4H	19.4	20.7	19.7	20.9	21.2	18.6	19.9	18.9	20.1	20.4
	6H	19.8	21.0	20.1	21.3	21.6	18.8	20.1	19.2	20.3	20.6
	8H	19.9	21.1	20.2	21.4	21.7	18.9	20.0	19.2	20.3	20.6
	12H	20.0	21.1	20.3	21.4	21.7	18.8	20.0	19.2	20.3	20.6
4H	2H	17.7	19.0	18.0	19.3	19.5	17.4	18.7	17.7	18.9	19.2
	3H	19.5	20.6	19.8	20.9	21.2	18.9	20.1	19.3	20.4	20.7
	4H	20.2	21.3	20.6	21.6	21.9	19.5	20.6	19.9	20.9	21.2
	6H	20.8	21.7	21.2	22.0	22.4	19.9	20.8	20.3	21.1	21.5
	8H	20.9	21.8	21.3	22.1	22.5	19.9	20.8	20.4	21.2	21.5
	12H	21.0	21.8	21.5	22.2	22.6	19.9	20.7	20.4	21.1	21.5
8H	4H	20.4	21.3	20.8	21.7	22.0	19.8	20.7	20.2	21.0	21.4
	6H	21.1	21.8	21.5	22.2	22.6	20.3	21.0	20.7	21.4	21.8
	8H	21.3	21.9	21.7	22.3	22.8	20.4	21.0	20.8	21.4	21.9
	12H	21.5	22.0	22.0	22.5	23.0	20.4	21.0	20.9	21.4	21.9
12H	4H	20.4	21.2	20.8	21.6	22.0	19.8	20.6	20.2	21.0	21.4
	6H	21.1	21.7	21.5	22.1	22.6	20.3	20.9	20.8	21.4	21.8
	8H	21.3	21.9	21.8	22.3	22.8	20.5	21.0	20.9	21.4	21.9
Variations with the observer position at spacings:											
S = 1.0H		+ 0.2 / - 0.2					+ 0.2 / - 0.2				
1.5H		+ 0.1 / - 0.3					+ 0.2 / - 0.4				
2.0H		+ 0.2 / - 0.3					+ 0.2 / - 0.4				

CIE Pub.117, 625.9 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -1.6)

C Range: 0 - 360DEG
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 Test Speed: HIGH
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 Operators:DAMIN
 Test Date:2019-11-29

g Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:3.200m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

NAME:	TYPE:SM5.5S10927UNVTW	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC.	SUR.:21cm*16cm	Shielding Angle:

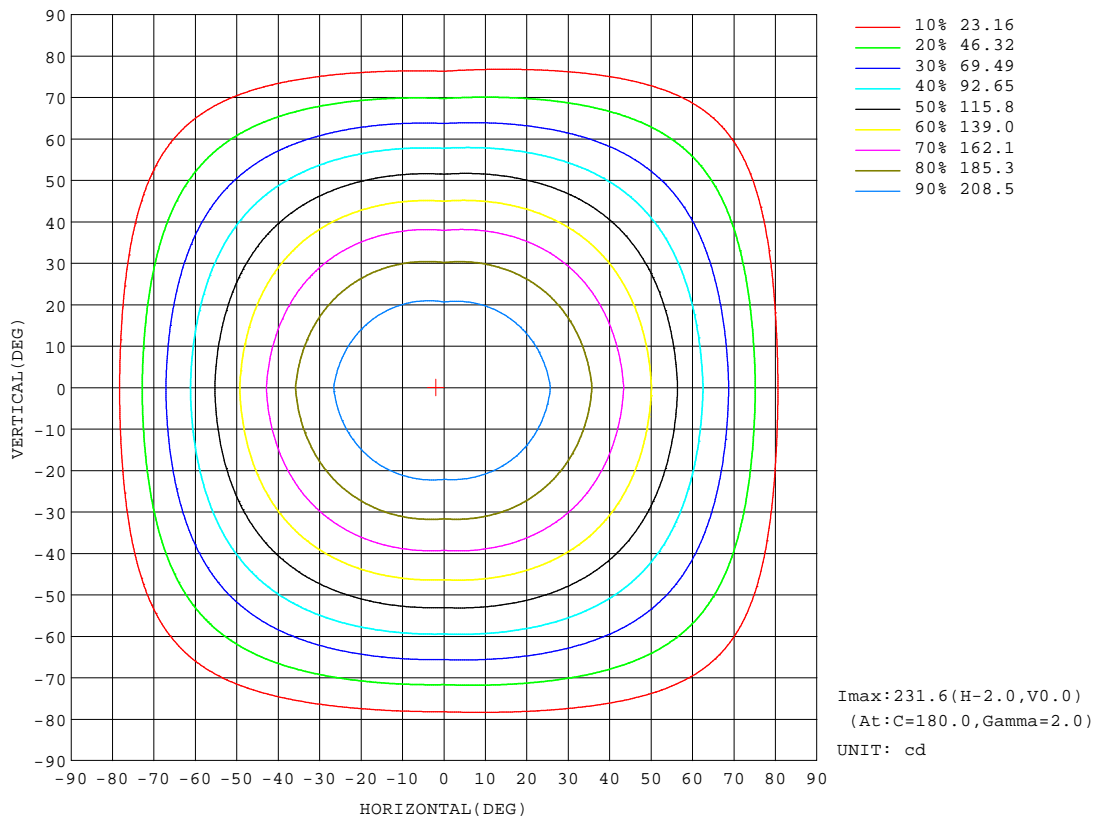
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	59	47	40	58	47	40	57	46	40	34
0.80	69	57	50	68	57	50	66	56	50	43
1.00	77	66	59	76	66	59	74	67	58	51
1.25	84	74	67	83	73	67	80	72	66	59
1.50	89	80	73	88	79	72	85	77	71	64
2.00	96	88	81	94	87	81	91	84	79	72
2.50	100	92	86	98	91	86	94	88	84	76
3.00	103	96	91	101	95	90	97	92	88	80
4.00	107	101	97	105	100	96	100	96	93	84
5.00	109	105	101	107	103	99	102	99	96	87
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

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 Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:3.200m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

NAME:	TYPE:SM5.5S10927UNVTW	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC.	SUR.:21cm*16cm	Shielding Angle:

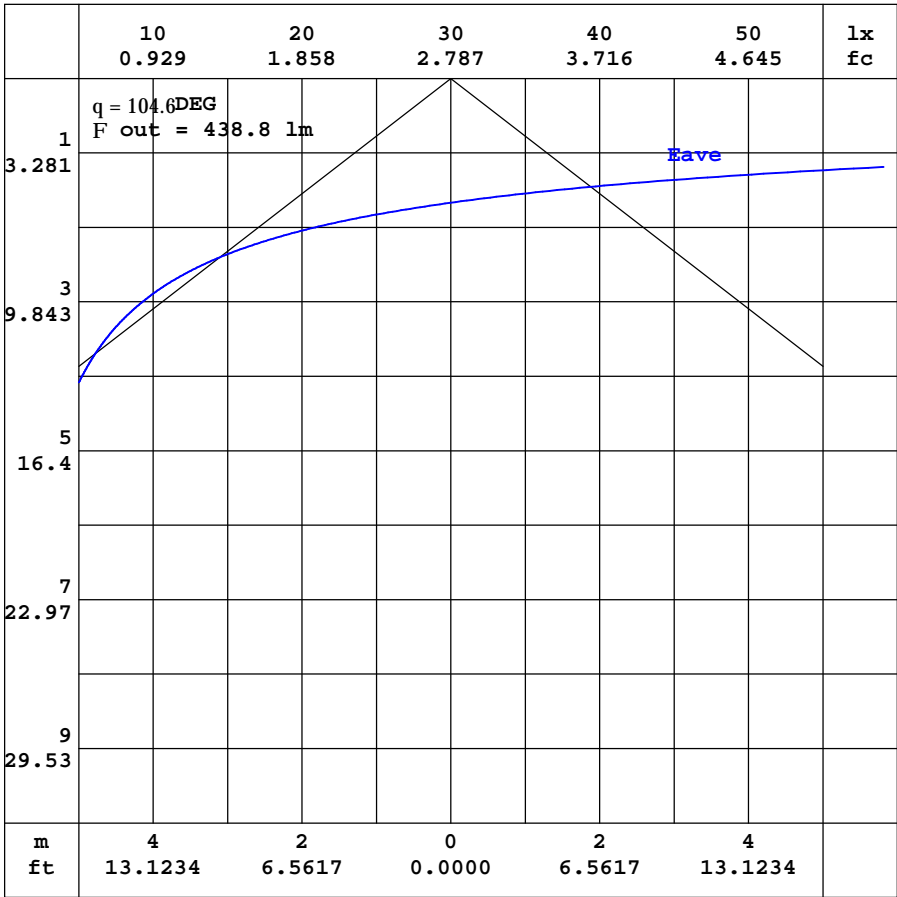


C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-11-29

Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:3.200m [K=1.0000]
 Remarks:

AAI CURVES

NAME:	TYPE:SM5.5S10927UNVTW	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC.	SUR.:21cm*16cm	Shielding Angle:

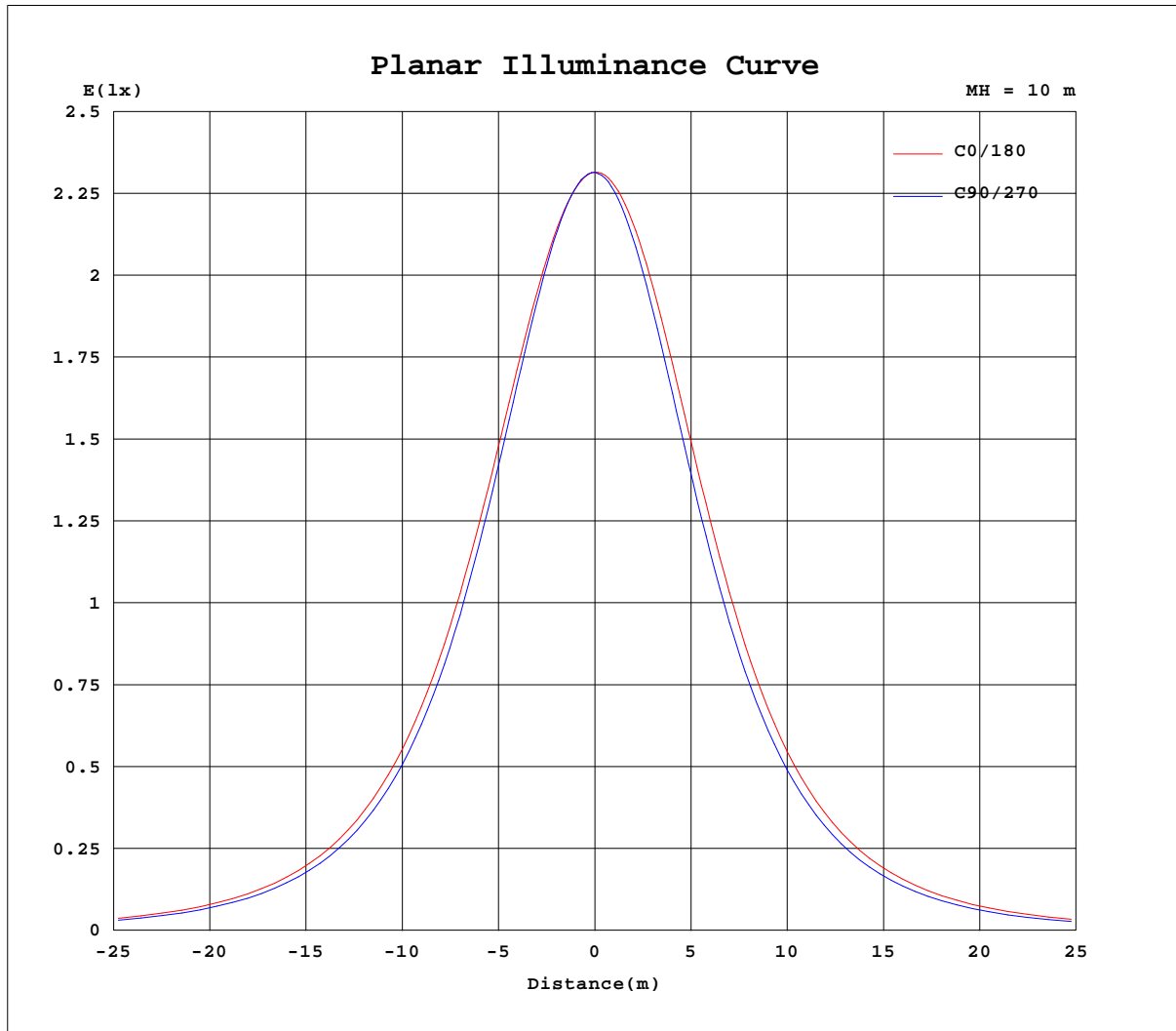


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
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 Operators:DAMIN
 Test Date:2019-11-29

Range: 0 - 90DEG
 Interval: 1.0DEG
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 Humidity:65.0%
 Test Distance:3.200m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2019-11-29

Page Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System: EVERFINE GO-SPEX500_V1 SYSTEM V2.0.366
 Humidity: 65.0%
 Test Distance: 3.200m [K=1.0000]
 Remarks:

