

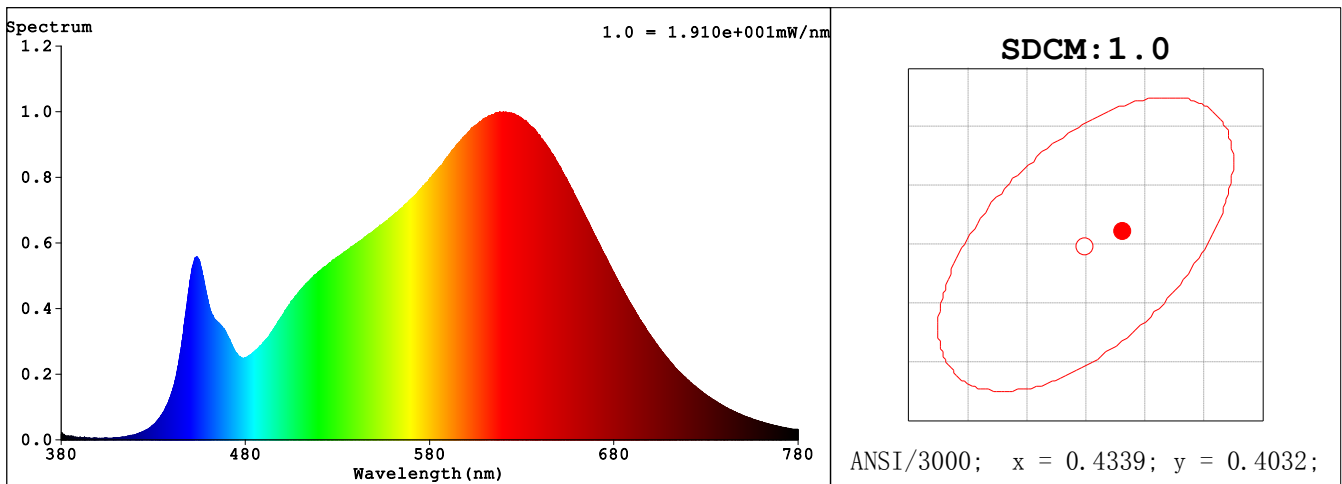
Spectrum Test Report

Sample :	Date : 2019-12-22
Specification : WFR6R12930UNVWB	Sam. Status :
Sample No. : 1	Standard :
Manufacturer : RAB LIGHTING INC.	Instrument : HaasSuite(EVERFINE)
Assessor : damin	
Remark : ---	Test by : DAMIN
Device SN : 9#	

Test Condition

Temprature : 24.7Deg	RH : 65.0%
WL Range : 380nm-780nm	IP : 53104 (81%)
Test Mode : Fast Test	T : 206 ms
Sensitivity : High	

Spectrum



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.4360$ $y = 0.4042$ / $u' = 0.2499$ $v' = 0.5213$ ($duv=1.63e-04$)
 CCT= 3017K Prcp WL: Ld=582.7nm Purity=52.2%
 Peak WL: Lp=620nm FWHM: =163.5nm Ratio:R=24.2% G=72.8% B=3.0%
 Render Index: Ra = 93.3

EEL: 0.15766 A+

R1 =94 R2 =97 R3 =99 R4 =93 R5 =93 R6 =96 R7 =92
 R8 =82 R9 =61 R10=93 R11=94 R12=80 R13=95 R14=99 R15=89
 LEVEL:OUT WHITE:ANSI_3000K

Photometric & Radiometric Parameters

Flux = 979.84 lm Eff. : 82.25 lm/W Fe = 3.3784 W Scotopic:1408.4 S/P:1.4373
 Flux of emitted photons($\mu\text{mol/s}$):16.703 Fluo. and blue light ratio:10.15 Fluorescent eff.:256.3

Electrical parameters

V = 120.01 V I = 0.1000 A P = 11.91 W PF = 0.9925 F=59.98 Hz

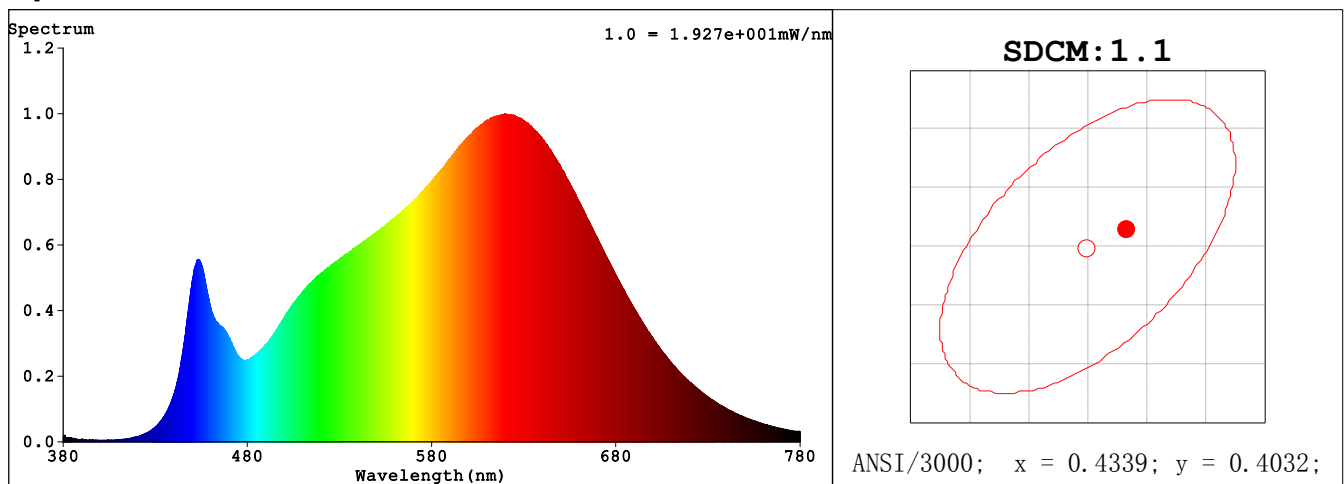
Spectrum Test Report

Sample :	Date : 2019-12-22
Specification : WFR6R12930UNVWB	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

Temprature : 24.6Deg	RH : 65.0%
WL Range : 380nm-780nm	IP : 53560 (82%)
Test Mode : Fast Test	T : 206 ms
Sensitivity : High	

Spectrum



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.4361$ $y = 0.4044$ / $u' = 0.2499$ $v' = 0.5214$ ($duv=2.44e-04$)
 CCT= 3017K Prcp WL: Ld=582.7nm Purity=52.3%
 Peak WL: Lp=620nm FWHM: =163.6nm Ratio:R=24.2% G=72.8% B=3.0%
 Render Index: Ra = 93.3

EEL: 0.15969 A+

R1 =94 R2 =97 R3 =99 R4 =93 R5 =93 R6 =96 R7 =92
 R8 =82 R9 =61 R10=92 R11=94 R12=80 R13=95 R14=99 R15=89
 LEVEL:OUT WHITE:ANSI_3000K

Photometric & Radiometric Parameters

Flux = 982.93 lm Eff. : 81.25 lm/W Fe = 3.3882 W Scotopic:1412 S/P:1.4365
 Flux of emitted photons($\mu\text{mol/s}$):16.753 Fluo. and blue light ratio:10.19 Fluorescent eff.:236.6

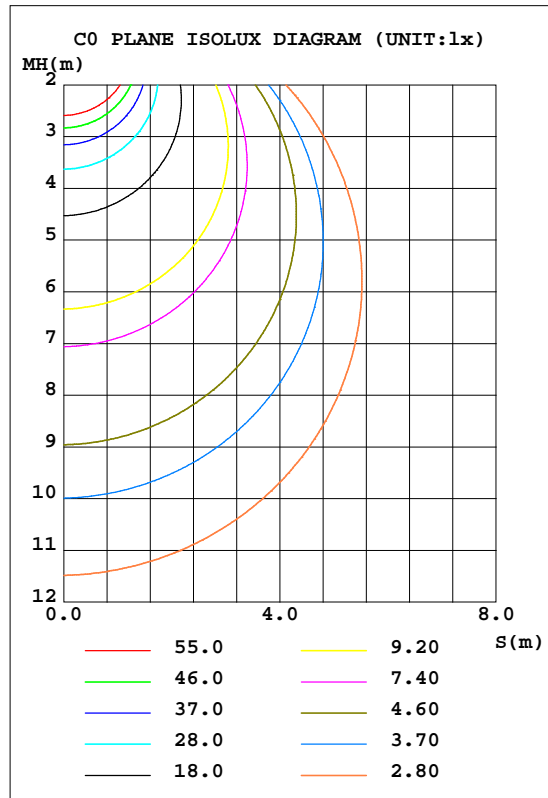
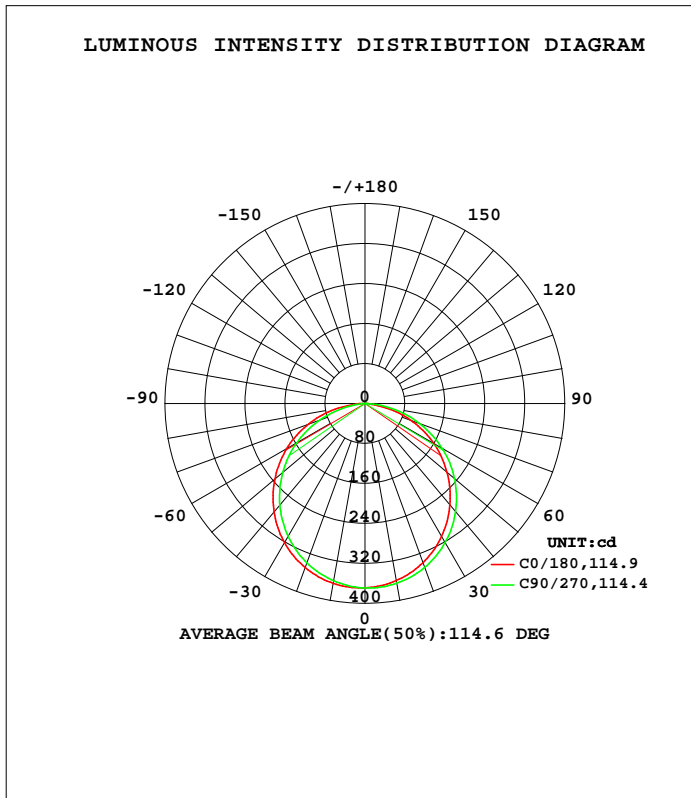
Electrical parameters

V = 277.07 V I = 0.04707 A P = 12.10 W PF = 0.9277 F=59.98 Hz

LUMINAIRE PHOTOMETRIC TEST REPORT

NAME:	TYPE:WFR6R12930UNVWB	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC.	SUR.:21cm*16cm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 89.70 lm/W
MODEL		I _{max} (cd)	369.2	S/MH(C0/180)	1.30	
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	1.24	
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	1072.3	h UP, DN(C0-180)	0.0,49.8	
NOMINAL FLUX(lm)	1072.29	CIE CLASS	DIRECT	h UP, DN(C180-360)	0.0,50.2	
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:2019-12-21

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:

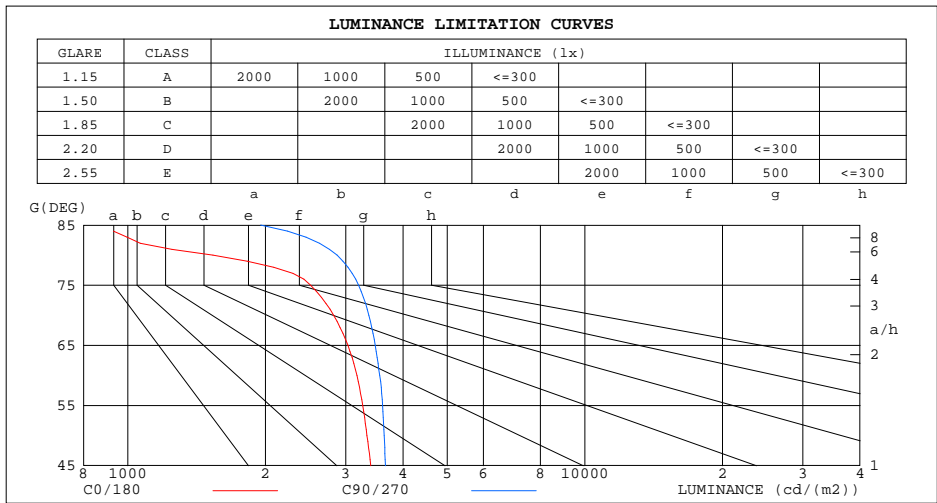
g	C0	C90	C180	C270					g	F zone	F total	%lum,lamp
10	360.0	365.2	365.5	360.3					0- 10	34.93	34.93	3.26,3.26
20	339.3	349.2	349.7	339.5					10- 20	100.2	135.2	12.6,12.6
30	306.9	321.2	321.9	307.3					20- 30	152.5	287.6	26.8,26.8
40	264.7	282.2	283.3	265.2					30- 40	184.7	472.4	44.1,44.1
50	214.5	234.0	235.5	215.0					40- 50	193.0	665.4	62,62
60	158.5	178.0	181.3	158.0					50- 60	176.6	842.0	78.5,78.5
70	96.48	115.4	119.6	95.01					60- 70	136.6	978.6	91.3,91.3
80	26.67	49.87	54.13	29.62					70- 80	78.19	1057	98.6,98.6
90	0.4798	0.5248	2.219	0.1256					80- 90	15.50	1072	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
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-12-21

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:WFR6R12930UNVWB	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC.	SUR.:21cm*16cm	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	755	1952
80	1537	2871
75	2512	3200
70	2822	3371
65	3031	3480
60	3173	3558
55	3265	3610
50	3339	3639
45	3402	3662

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-12-21

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:WFR6R12930UNVWB	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	.308	.175	.056	.301	.172	.055	.288	.165	.053	.276	.159	.051	.264	.153	.049	
2.0	.292	.160	.049	.286	.157	.049	.274	.152	.047	.263	.148	.046	.253	.143	.045	
3.0	.271	.144	.043	.265	.142	.043	.255	.138	.042	.245	.134	.041	.237	.131	.041	
4.0	.250	.130	.038	.245	.128	.038	.236	.125	.037	.228	.122	.037	.220	.119	.036	
5.0	.231	.118	.034	.227	.117	.034	.219	.114	.034	.211	.111	.033	.204	.109	.033	
6.0	.214	.108	.031	.211	.106	.031	.203	.104	.030	.197	.102	.030	.190	.100	.030	
7.0	.200	.099	.028	.196	.098	.028	.190	.096	.028	.184	.094	.027	.178	.092	.027	
8.0	.186	.091	.026	.183	.090	.026	.177	.089	.025	.172	.087	.025	.167	.086	.025	
9.0	.175	.084	.024	.172	.084	.024	.167	.082	.023	.162	.081	.023	.157	.080	.023	
10.0	.164	.079	.022	.162	.078	.022	.157	.077	.022	.153	.076	.022	.148	.075	.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	.180	.156	.134	.154	.134	.116	.105	.092	.080	.061	.053	.047	.019	.017	.015	
2.0	.172	.132	.098	.148	.114	.085	.101	.079	.059	.058	.046	.035	.019	.015	.011	
3.0	.165	.114	.074	.141	.099	.064	.097	.069	.045	.056	.040	.027	.018	.013	.009	
4.0	.157	.101	.058	.135	.087	.051	.093	.061	.036	.054	.036	.021	.017	.012	.007	
5.0	.150	.091	.047	.129	.078	.041	.089	.055	.029	.051	.032	.017	.017	.010	.006	
6.0	.143	.082	.039	.123	.071	.034	.085	.050	.024	.049	.029	.014	.016	.010	.005	
7.0	.136	.075	.033	.117	.065	.029	.081	.046	.020	.047	.027	.012	.015	.009	.004	
8.0	.129	.070	.029	.111	.060	.025	.077	.042	.018	.045	.025	.011	.014	.008	.003	
9.0	.123	.065	.025	.106	.056	.022	.073	.039	.016	.043	.023	.009	.014	.008	.003	
10.0	.117	.060	.022	.101	.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:2019-12-21

g Range: 0 - 90DEG
 g 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:WFR6R12930UNVWB					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	16.8	18.3	17.0	18.5	18.7	17.2	18.7	17.5	18.9	19.1
	3H	18.2	19.6	18.5	19.9	20.1	18.8	20.2	19.1	20.5	20.7
	4H	18.8	20.1	19.1	20.4	20.6	19.5	20.8	19.8	21.1	21.4
	6H	19.0	20.3	19.4	20.6	20.9	20.0	21.3	20.3	21.5	21.8
	8H	19.0	20.3	19.4	20.5	20.8	20.1	21.3	20.5	21.6	21.9
	12H	19.0	20.2	19.4	20.5	20.8	20.2	21.4	20.5	21.7	22.0
4H	2H	17.4	18.8	17.8	19.0	19.3	17.8	19.1	18.1	19.4	19.6
	3H	19.1	20.3	19.4	20.6	20.9	19.6	20.8	19.9	21.1	21.4
	4H	19.8	20.8	20.1	21.2	21.5	20.4	21.5	20.8	21.8	22.1
	6H	20.1	21.1	20.5	21.4	21.8	21.0	21.9	21.4	22.3	22.7
	8H	20.1	21.0	20.6	21.4	21.8	21.2	22.1	21.6	22.4	22.8
	12H	20.1	21.0	20.6	21.3	21.7	21.3	22.1	21.7	22.5	22.9
8H	4H	20.1	21.0	20.5	21.3	21.7	20.6	21.5	21.0	21.9	22.3
	6H	20.5	21.3	21.0	21.7	22.1	21.3	22.1	21.8	22.5	22.9
	8H	20.6	21.2	21.0	21.7	22.1	21.6	22.2	22.0	22.7	23.1
	12H	20.6	21.2	21.1	21.6	22.1	21.7	22.3	22.2	22.7	23.2
12H	4H	20.1	20.9	20.5	21.3	21.7	20.6	21.4	21.0	21.8	22.2
	6H	20.6	21.2	21.0	21.6	22.1	21.4	22.0	21.8	22.4	22.9
	8H	20.7	21.2	21.1	21.7	22.1	21.6	22.2	22.1	22.6	23.1
Variations with the observer position at spacings:											
S = 1.0H		+ 0.2 / - 0.2					+ 0.1 / - 0.2				
1.5H		+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H		+ 0.2 / - 0.4					+ 0.2 / - 0.3				

CIE Pub.117, 1072 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 0.2)

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-12-21

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:WFR6R12930UNVWB	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC.	SUR.:21cm*16cm	Shielding Angle:

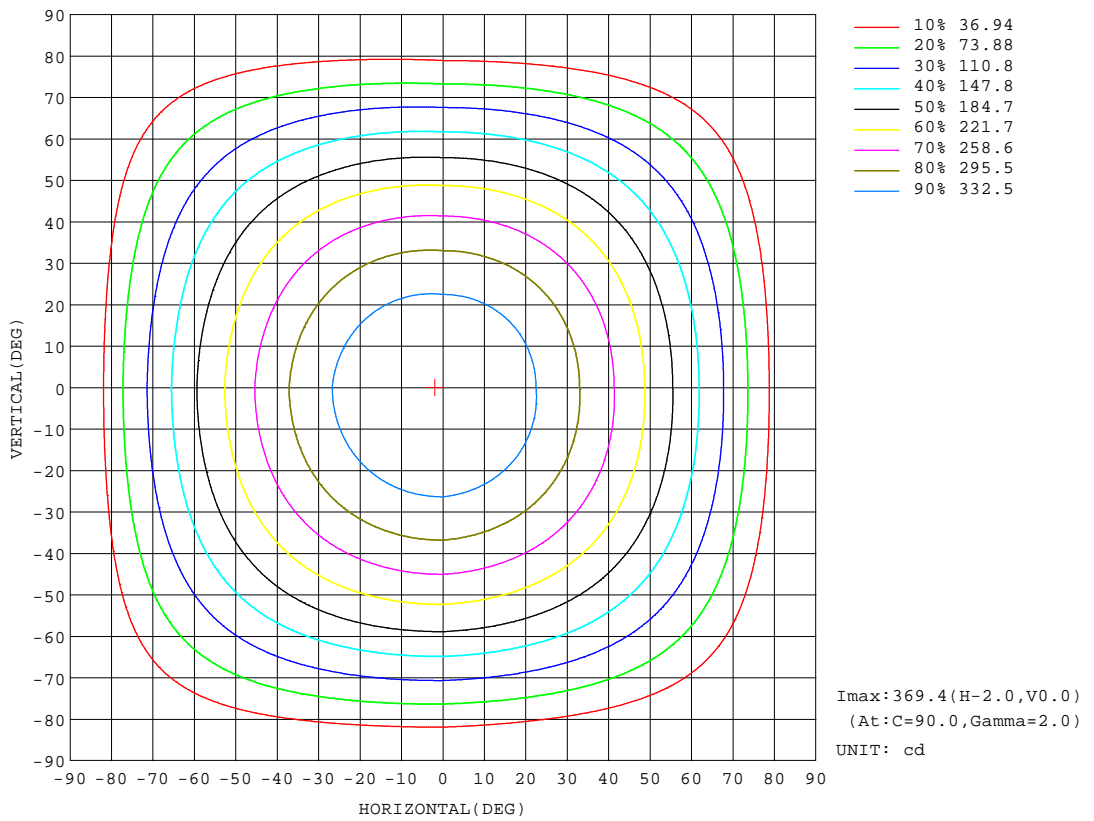
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	57	46	39	56	45	38	55	45	38	32
0.80	67	56	48	66	55	48	64	54	48	41
1.00	76	65	57	75	64	57	72	65	56	49
1.25	83	72	65	81	72	65	79	70	64	57
1.50	88	78	71	86	77	70	83	75	69	62
2.00	95	86	80	93	85	79	90	83	78	70
2.50	99	91	85	97	90	84	93	87	82	74
3.00	102	95	90	100	94	89	96	91	87	78
4.00	106	101	96	104	99	95	100	95	92	83
5.00	109	104	100	106	102	98	102	98	95	86
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:DAMIN
 Test Date:2019-12-21

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:

ISOCANDELA DIAGRAM

NAME:	TYPE:WFR6R12930UNVWB	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC.	SUR.:21cm*16cm	Shielding Angle:



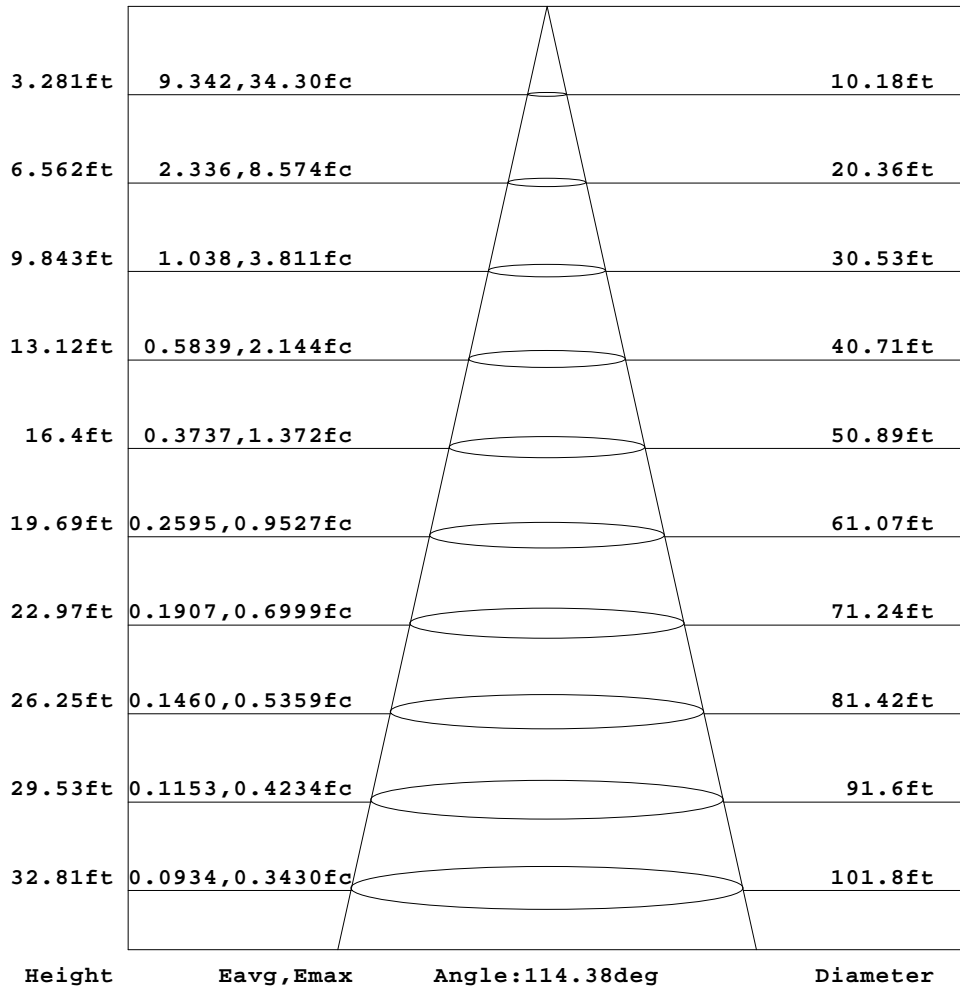
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2019-12-21

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 Figure

NAME:	TYPE:WFR6R12930UNVWB	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC.	SUR.:21cm*16cm	Shielding Angle:

Flux out:809.1 lm

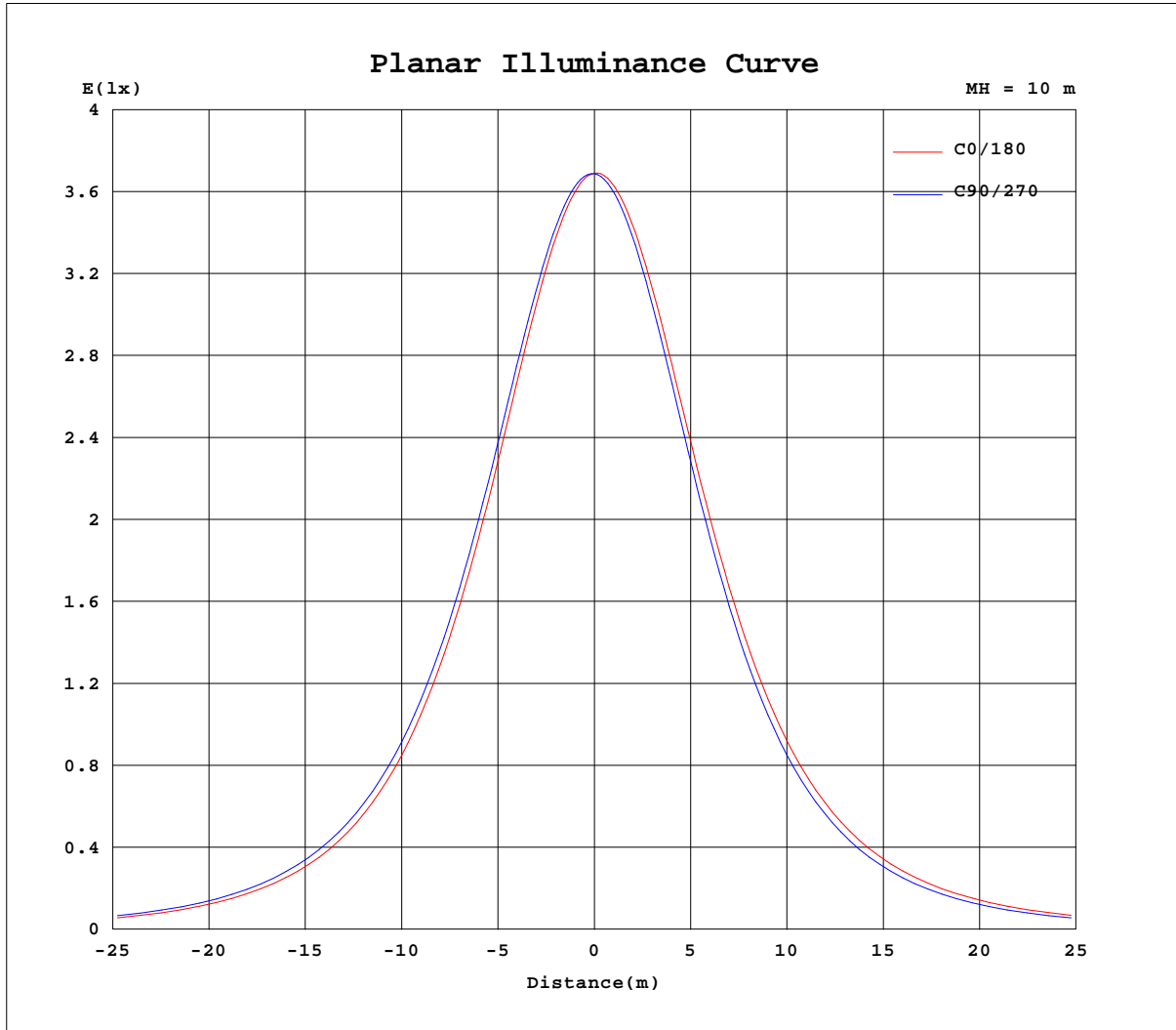


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-12-21

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:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2019-12-21

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:

