

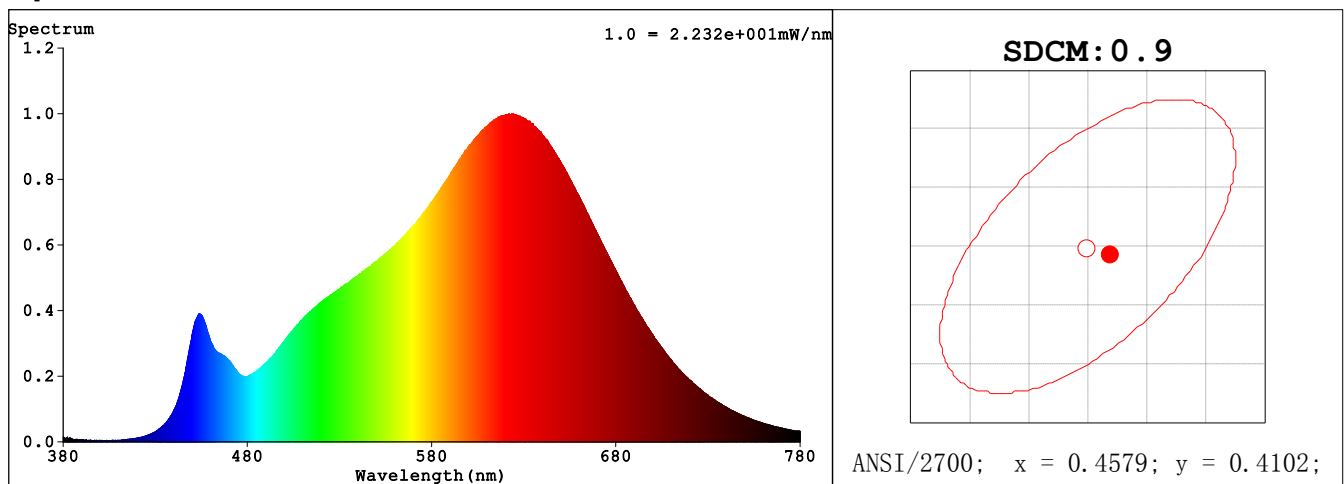
## Spectrum Test Report

Sample :	Date : 2019-12-05
Specification : WFR6R14927120WS	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 : 24.6Deg	RH : 65.0%
WL Range : 380nm-780nm	IP : 53155 (81%)
Test Mode : Fast Test	T : 177 ms
Sensitivity : High	

### Spectrum



### Colorimetric Parameters

Chromaticity Coordinate:  $x = 0.4592$   $y = 0.4098$  /  $u' = 0.2624$   $v' = 0.5269$  ( $duv = -2.36e-04$ )  
 CCT= 2703K Prcp WL:  $L_d = 584.3nm$  Purity=60.8%  
 Peak WL:  $L_p = 624nm$  FWHM: =143.9nm Ratio:R=26.5% G=70.9% B=2.6%  
 Render Index:  $R_a = 93.3$

EEl: 0.17360 A

R1 =94 R2 =98 R3 =98 R4 =93 R5 =94 R6 =97 R7 =91  
 R8 =81 R9 =59 R10=95 R11=95 R12=85 R13=95 R14=100 R15=89  
 LEVEL:OUT WHITE:ANSI\_2700K

### Photometric & Radiometric Parameters

Flux = 1037.9 lm Eff. : 75.48 lm/W Fe = 3.6683 W Scotopic:1352.2 S/P:1.3028

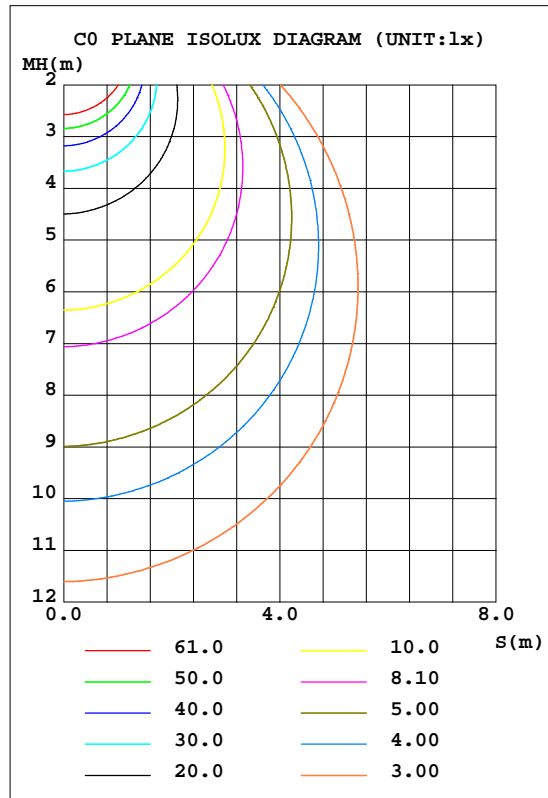
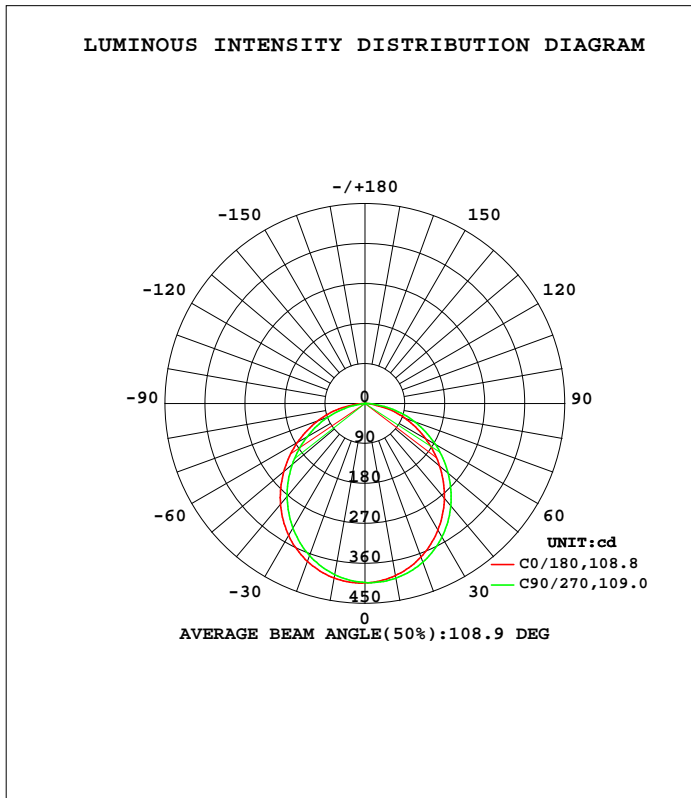
### Electrical parameters

V = 120.10 V I = 0.1165 A P = 13.75 W PF = 0.9830 F=59.98 Hz

LUMINAIRE PHOTOMETRIC TEST REPORT

NAME:	TYPE:WFR6R14927120WS	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC.	SUR.:21cm*16cm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL		Imax(cd)	404.4	S/MH(C0/180)	1.26
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	1.20
RATED VOLTAGE(V)	12	TOTAL FLUX(lm)	1104.1	h UP, DN(C0-180)	0.0,50.7
NOMINAL FLUX(lm)	1104.13	CIE CLASS	DIRECT	h UP, DN(C180-360)	0.0,49.3
LAMPS INSIDE	1	h up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	12	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:2019-12-05

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:

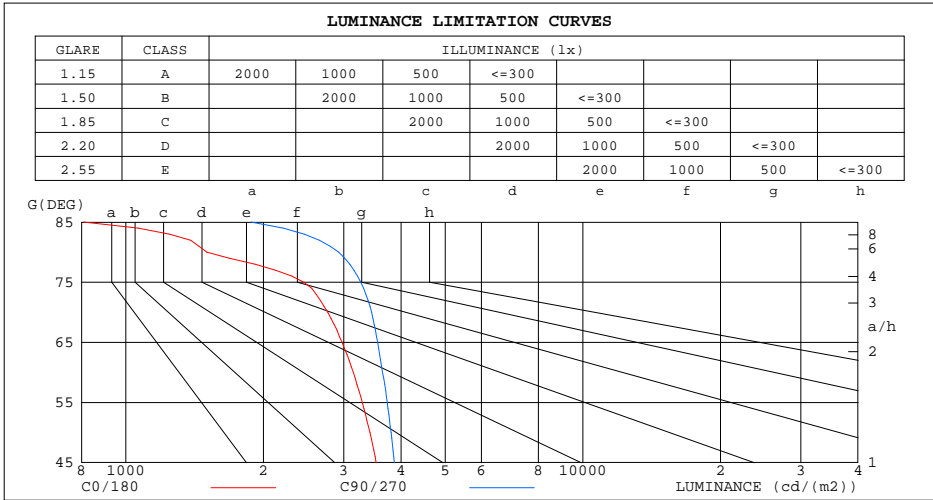
g	C0	C90	C180	C270					g	F zone	F total	%lum,lamp
10	393.6	399.3	399.0	391.2					0- 10	38.15	38.15	3.45,3.45
20	368.0	380.4	378.6	364.6					10- 20	108.9	147.1	13.3,13.3
30	328.8	347.0	343.6	324.4					20- 30	164.0	311.1	28.2,28.2
40	278.3	300.7	296.0	273.0					30- 40	195.6	506.7	45.9,45.9
50	219.9	244.7	238.9	214.0					40- 50	199.7	706.4	64,64
60	157.3	182.4	175.6	151.3					50- 60	177.3	883.8	80,80
70	94.62	118.1	111.5	87.13					60- 70	133.3	1017	92.1,92.1
80	26.11	50.72	44.29	21.18					70- 80	73.82	1091	98.8,98.8
90	0.3257	0.2788	0.0417	0.0614					80- 90	13.22	1104	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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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**

<b>NAME:</b>	<b>TYPE:WFR6R14927120WS</b>	<b>WEIGHT:</b>
<b>SPEC.:</b>	<b>DIM.:</b>	<b>SERIAL No.:</b>
<b>MFR.: RAB LIGHTING INC.</b>	<b>SUR.:21cm*16cm</b>	<b>Shielding Angle:</b>



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	808	1877
80	1504	2921
75	2453	3267
70	2766	3453
65	2975	3557
60	3146	3648
55	3292	3733
50	3421	3807
45	3531	3871

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**C Interval: 90.0DEG**  
**Test Speed: HIGH**  
**Temperature:25.3DEG**  
**Operators:DAMIN**  
**Test Date:2019-12-05**

**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:WFR6R14927120WS	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	.300	.170	.054	.293	.167	.053	.280	.160	.051	.267	.154	.049	.256	.148	.048	
2.0	.285	.156	.048	.279	.154	.047	.268	.149	.046	.257	.144	.045	.247	.140	.044	
3.0	.265	.141	.042	.260	.139	.042	.250	.135	.041	.240	.132	.040	.231	.128	.040	
4.0	.246	.128	.038	.241	.126	.037	.232	.123	.037	.223	.120	.036	.215	.117	.036	
5.0	.228	.116	.034	.223	.115	.033	.215	.112	.033	.208	.110	.033	.201	.107	.032	
6.0	.211	.106	.030	.208	.105	.030	.200	.103	.030	.194	.101	.030	.187	.099	.029	
7.0	.197	.097	.028	.194	.096	.027	.187	.095	.027	.181	.093	.027	.175	.091	.027	
8.0	.184	.090	.025	.181	.089	.025	.175	.088	.025	.170	.086	.025	.165	.085	.025	
9.0	.173	.084	.023	.170	.083	.023	.165	.082	.023	.160	.080	.023	.155	.079	.023	
10.0	.163	.078	.022	.160	.077	.022	.155	.076	.021	.151	.075	.021	.147	.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	.180	.156	.135	.154	.134	.116	.105	.092	.080	.061	.053	.047	.019	.017	.015	
2.0	.171	.132	.099	.147	.114	.085	.101	.079	.060	.058	.046	.035	.019	.015	.011	
3.0	.164	.114	.075	.140	.099	.065	.096	.068	.046	.056	.040	.027	.018	.013	.009	
4.0	.156	.101	.059	.134	.087	.051	.092	.061	.036	.053	.036	.021	.017	.012	.007	
5.0	.149	.090	.048	.128	.078	.041	.088	.055	.029	.051	.032	.017	.016	.010	.006	
6.0	.142	.082	.039	.122	.071	.034	.084	.050	.024	.049	.029	.014	.016	.010	.005	
7.0	.135	.075	.033	.116	.065	.029	.080	.046	.021	.047	.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	.043	.023	.009	.014	.008	.003	
10.0	.117	.060	.023	.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:2019-12-05

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:WFR6R14927120WS					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	16.7	18.2	16.9	18.4	18.6	17.2	18.7	17.5	18.9	19.1
	3H	18.1	19.5	18.4	19.7	19.9	18.8	20.2	19.1	20.4	20.7
	4H	18.6	19.9	18.9	20.2	20.4	19.5	20.8	19.8	21.0	21.3
	6H	18.8	20.1	19.1	20.3	20.6	19.9	21.2	20.3	21.5	21.7
	8H	18.8	20.0	19.2	20.3	20.6	20.1	21.3	20.4	21.6	21.9
	12H	18.8	20.0	19.2	20.3	20.6	20.1	21.3	20.5	21.6	21.9
4H	2H	17.3	18.7	17.6	18.9	19.2	17.7	19.1	18.1	19.3	19.6
	3H	18.9	20.1	19.3	20.4	20.7	19.5	20.7	19.9	21.0	21.3
	4H	19.6	20.6	19.9	20.9	21.3	20.3	21.4	20.7	21.7	22.0
	6H	19.9	20.8	20.3	21.2	21.5	20.9	21.9	21.3	22.2	22.6
	8H	19.9	20.8	20.4	21.2	21.6	21.1	22.0	21.5	22.3	22.7
	12H	19.9	20.7	20.4	21.1	21.5	21.2	22.0	21.6	22.4	22.8
8H	4H	19.9	20.7	20.3	21.1	21.5	20.5	21.4	21.0	21.8	22.2
	6H	20.3	21.0	20.7	21.4	21.8	21.3	22.0	21.7	22.4	22.8
	8H	20.4	21.0	20.9	21.5	21.9	21.5	22.1	22.0	22.6	23.0
	12H	20.4	21.0	20.9	21.4	21.9	21.6	22.2	22.1	22.6	23.1
12H	4H	19.9	20.7	20.3	21.1	21.5	20.5	21.3	21.0	21.7	22.1
	6H	20.3	21.0	20.8	21.4	21.8	21.3	21.9	21.7	22.3	22.8
	8H	20.5	21.0	21.0	21.5	22.0	21.6	22.1	22.0	22.5	23.0
Variations with the observer position at spacings:											
S = 1.0H		+ 0.2 / - 0.2					+ 0.1 / - 0.2				
1.5H		+ 0.2 / - 0.4					+ 0.1 / - 0.3				
2.0H		+ 0.2 / - 0.4					+ 0.2 / - 0.3				

CIE Pub.117, 1104 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 0.3)

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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:

UTILIZATION FACTORS TABLE

NAME:	TYPE:WFR6R14927120WS	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC.	SUR.:21cm*16cm	Shielding Angle:

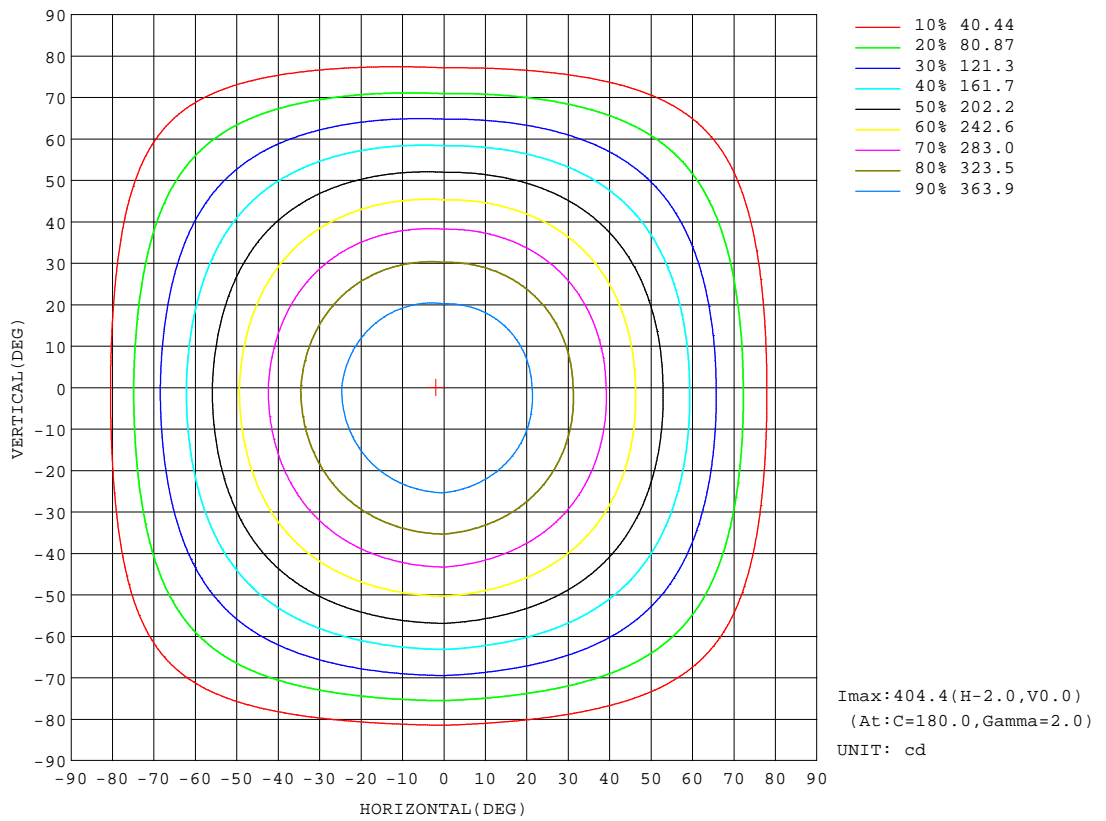
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	58	47	40	57	47	40	56	46	40	33
0.80	68	57	50	67	56	49	66	56	49	42
1.00	77	66	59	76	65	58	73	67	58	51
1.25	84	73	66	82	73	66	80	71	65	58
1.50	89	79	72	87	78	72	84	76	71	63
2.00	96	87	81	94	86	80	90	84	79	71
2.50	99	92	86	97	90	85	94	88	83	75
3.00	103	96	91	101	95	90	97	92	87	79
4.00	107	101	97	104	99	95	100	96	93	84
5.00	109	104	100	107	102	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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 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.0.366  
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 Test Distance:3.200m [K=1.0000]  
 Remarks:

ISOCANDELA DIAGRAM

NAME:	TYPE:WFR6R14927120WS	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC.	SUR.:21cm*16cm	Shielding Angle:



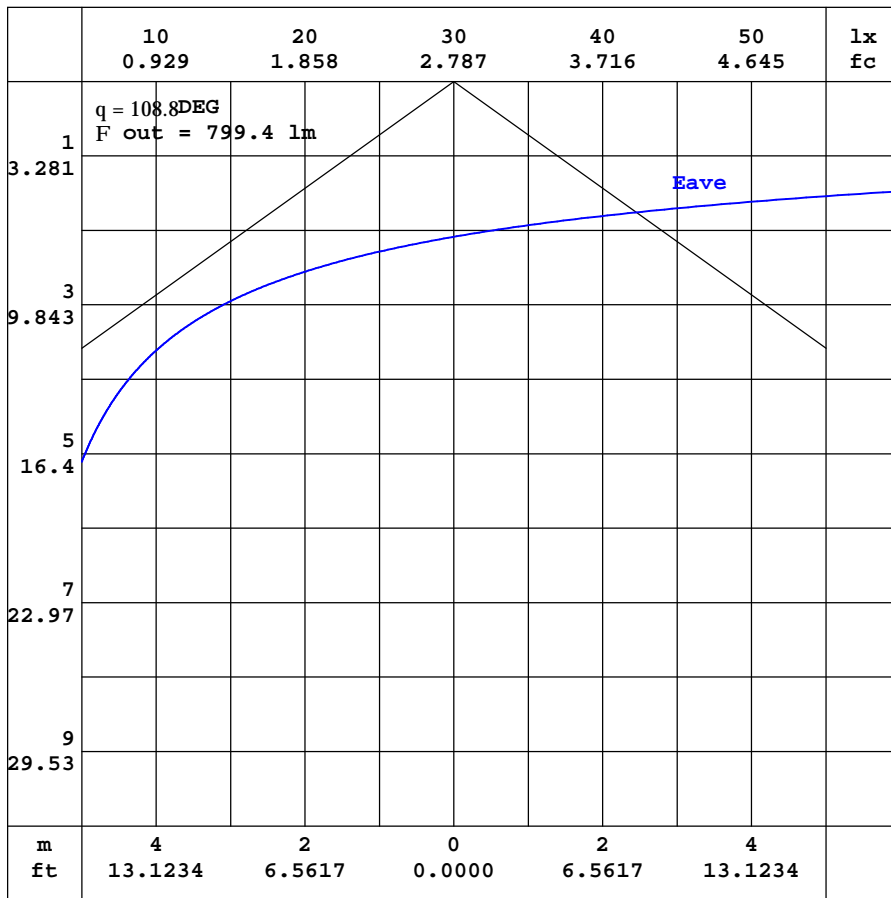
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 Remarks:



AAI CURVES

NAME:	TYPE:WFR6R14927120WS	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC.	SUR.:21cm*16cm	Shielding Angle:

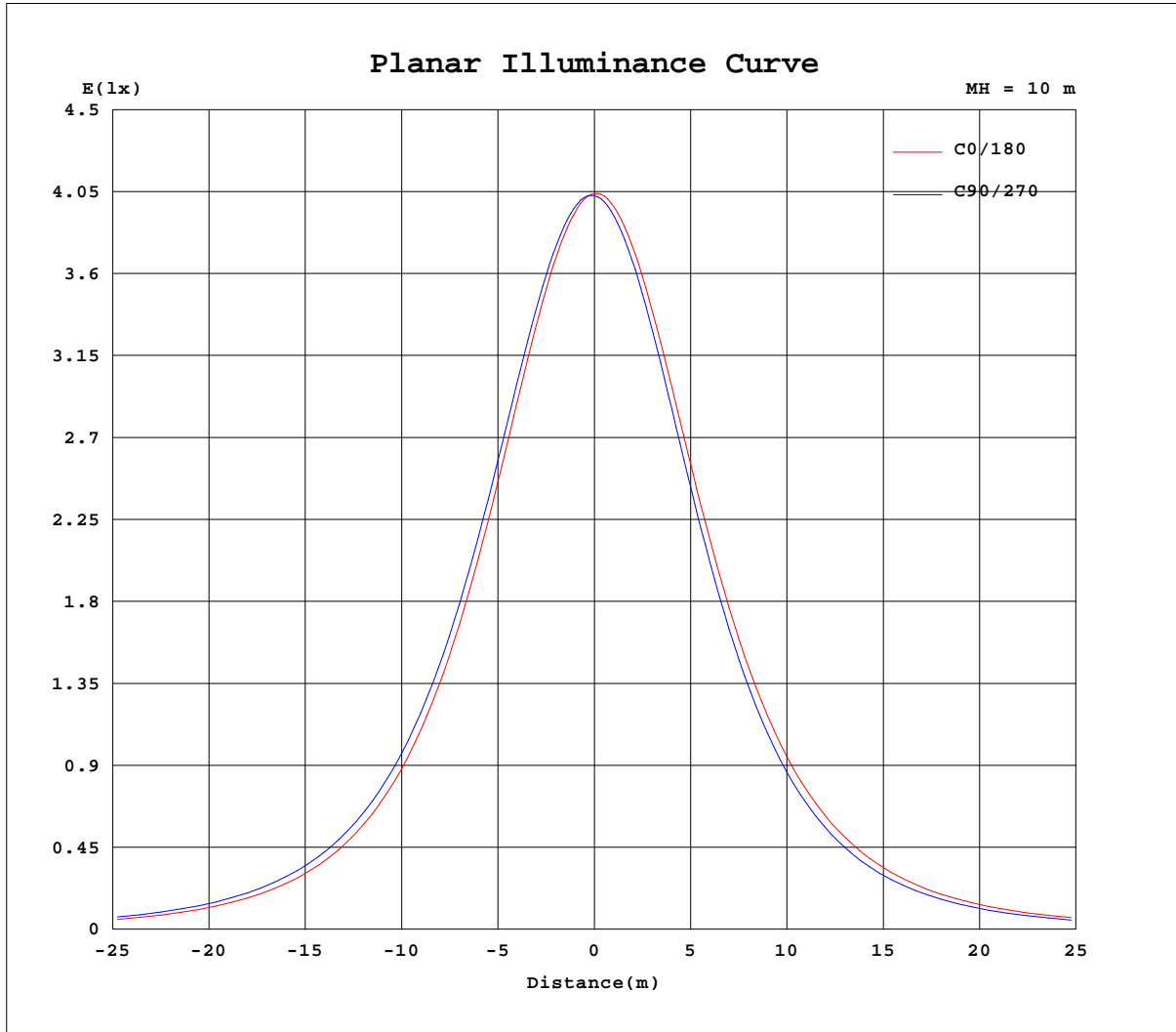


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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Range: 0 - 90DEG  
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Planar Illuminance Curve



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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:

