

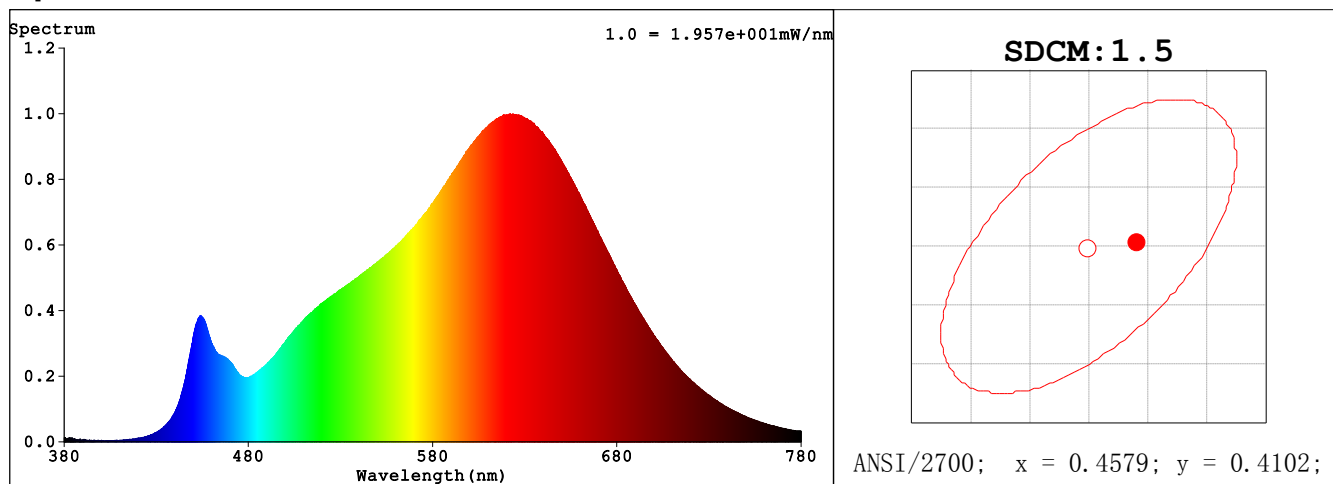
Spectrum Test Report

Sample	:		Date	:	2019-12-05
Specification	:	WFR6R12927120WS	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	:	25.7Deg	RH	:	65.0%
WL Range	:	380nm-780nm	IP	:	53183 (81%)
Test Mode	:	Fast Test	T	:	202 ms
Sensitivity	:	High			

Spectrum



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.4606$ $y = 0.4106$ / $u' = 0.2630$ $v' = 0.5275$ ($duv = -7.03e-05$)

CCT= 2689K Prcp WL: $L_d = 584.3nm$ Purity=61.5%

Peak WL: $L_p = 622nm$ FWHM: $= 143.0nm$ Ratio: R=26.7% G=70.8% B=2.6%

Render Index: $R_a = 93.3$

EEL: 0.17243 A

R1 =94 R2 =98 R3 =99 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 = 903.89 lm Eff. : 74.10 lm/W $F_e = 3.1964 W$ Scotopic: 1170.7 S/P: 1.2952

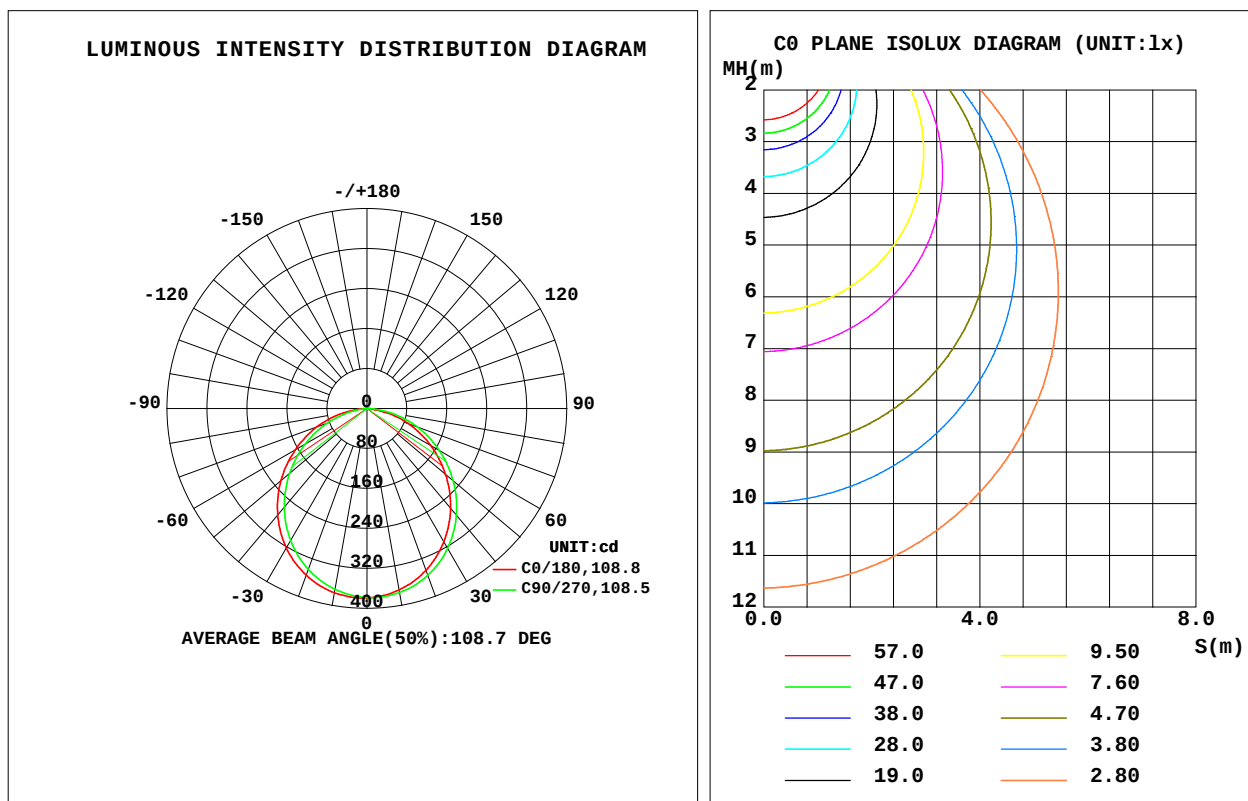
Electrical parameters

V = 120.09 V I = 0.1037 A P = 12.20 W PF = 0.9792 F=59.98 Hz

LUMINAIRE PHOTOMETRIC TEST REPORT

NAME:	TYPE:WFR6R12927120WS	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC.	SUR.:21cm*16cm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 83.45 lm/W			
MODEL		I _{max} (cd)	379.1	S/MH(C0/180)	1.26
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	1.21
RATED VOLTAGE(V)	12	TOTAL FLUX(lm)	1031.3	h UP, DN(C0-180)	0.0,50.3
NOMINAL FLUX(lm)	1031.3	CIE CLASS	DIRECT	h UP, DN(C180-360)	0.0,49.7
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 G0-SPEX500_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:3.200m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

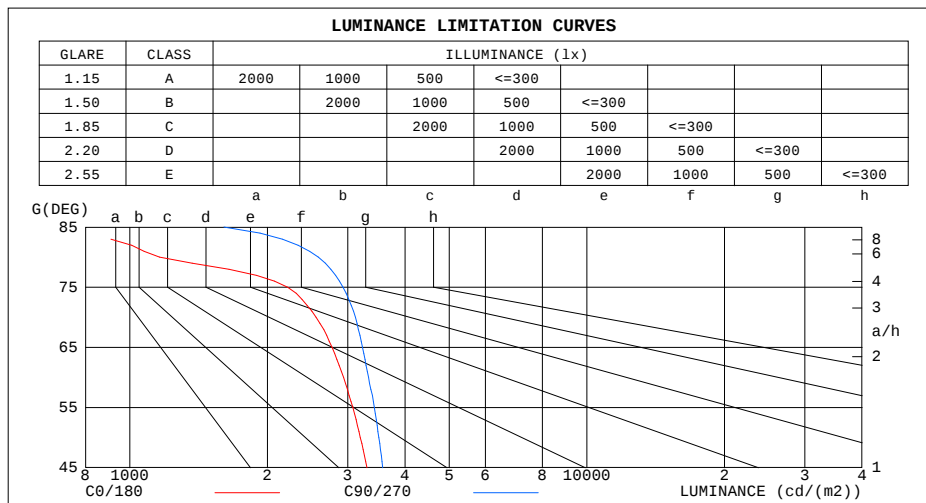
g	C0	C90	C180	C270					g	F zone	F total	%lum, lamp
10	368.8	374.1	374.4	367.6					0- 10	35.78	35.78	3.47, 3.47
20	344.8	355.5	355.3	342.9					10- 20	102.2	137.9	13.4, 13.4
30	307.9	323.1	322.7	305.4					20- 30	153.7	291.7	28.3, 28.3
40	260.3	278.7	278.1	257.4					30- 40	183.2	474.8	46, 46
50	205.5	225.4	224.8	202.2					40- 50	186.9	661.7	64.2, 64.2
60	146.7	166.4	165.7	143.5					50- 60	165.7	827.4	80.2, 80.2
70	87.46	106.6	105.8	82.77					60- 70	124.4	951.8	92.3, 92.3
80	20.17	44.92	40.37	21.36					70- 80	68.05	1020	98.9, 98.9
90	0.3131	0.2586	0.0488	0.0625					80- 90	11.45	1031	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		

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Temperature:25.3DEG
Operators:DAMIN
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Range: 0 - 90DEG
Interval: 1.0DEG
Test System:EVERFINE G0-SPEX500_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:3.200m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

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



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	565	1608
80	1161	2587
75	2215	2927
70	2557	3116
65	2773	3230
60	2935	3329
55	3076	3427
50	3196	3506
45	3304	3577

C Range: 0 - 360DEG
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Test Speed: HIGH
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Operators: DAMIN
Test Date: 2019-12-05

Range: 0 - 90DEG
Interval: 1.0DEG
Test System: EVERFINE G0-SPEX500_V1 SYSTEM V2.0.366
Humidity: 65.0%
Test Distance: 3.200m [K=1.0000]
Remarks:

WEC AND CCEC

NAME:	TYPE:WFR6R12927120WS	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC.	SUR.:21cm*16cm	Shielding Angle:

RC	80%			70%			50%			30%			10%			0
W	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
fC	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio Wall Exitance Coefficients(WEC)															
0.0																
1.0	.298	.170	.054	.291	.166	.053	.278	.160	.051	.266	.153	.049	.255	.148	.048	
2.0	.284	.156	.048	.278	.153	.047	.267	.148	.046	.256	.144	.045	.246	.139	.044	
3.0	.265	.141	.042	.259	.139	.042	.249	.135	.041	.240	.131	.040	.231	.128	.040	
4.0	.245	.127	.037	.240	.126	.037	.231	.123	.037	.223	.120	.036	.215	.117	.036	
5.0	.227	.116	.034	.223	.114	.033	.215	.112	.033	.207	.109	.033	.200	.107	.032	
6.0	.211	.106	.030	.207	.105	.030	.200	.103	.030	.193	.101	.030	.187	.099	.029	
7.0	.197	.097	.028	.193	.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	.083	.023	.170	.083	.023	.165	.081	.023	.160	.080	.023	.155	.079	.023	
10.0	.162	.078	.022	.160	.077	.022	.155	.076	.021	.151	.075	.021	.147	.074	.021	

RC	80%			70%			50%			30%			10%			0
W	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
fC	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	.081	.060	.053	.047	.019	.017	.015	
2.0	.171	.132	.099	.147	.114	.085	.101	.079	.060	.058	.046	.035	.019	.015	.011	
3.0	.163	.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	.141	.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	.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	.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

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:WFR6R12927120WS			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	2H	16.6	18.1	16.9	18.3	18.5	17.1	18.6	17.4	18.8	19.0
	3H	18.0	19.4	18.3	19.6	19.9	18.7	20.0	19.0	20.3	20.5
	4H	18.5	19.8	18.8	20.1	20.3	19.3	20.6	19.6	20.9	21.1
	6H	18.7	19.9	19.0	20.2	20.5	19.8	21.0	20.1	21.3	21.5
	8H	18.7	19.9	19.0	20.2	20.5	19.9	21.1	20.2	21.4	21.6
	12H	18.7	19.8	19.0	20.1	20.4	19.9	21.1	20.3	21.4	21.7
4H	2H	17.3	18.6	17.6	18.9	19.1	17.6	19.0	17.9	19.2	19.5
	3H	18.9	20.0	19.2	20.3	20.6	19.4	20.5	19.7	20.8	21.1
	4H	19.5	20.5	19.8	20.8	21.2	20.2	21.2	20.5	21.5	21.9
	6H	19.7	20.7	20.1	21.0	21.4	20.7	21.6	21.1	22.0	22.4
	8H	19.8	20.6	20.2	21.0	21.4	20.9	21.8	21.3	22.1	22.5
	12H	19.7	20.5	20.2	20.9	21.3	21.0	21.8	21.4	22.1	22.5
8H	4H	19.7	20.6	20.2	21.0	21.4	20.4	21.2	20.8	21.6	22.0
	6H	20.1	20.8	20.5	21.2	21.6	21.0	21.7	21.5	22.1	22.6
	8H	20.2	20.8	20.6	21.2	21.7	21.3	21.9	21.7	22.3	22.8
	12H	20.2	20.7	20.7	21.2	21.7	21.4	21.9	21.9	22.4	22.8
12H	4H	19.7	20.5	20.2	20.9	21.3	20.3	21.1	20.8	21.5	21.9
	6H	20.1	20.8	20.6	21.2	21.6	21.0	21.7	21.5	22.1	22.5
	8H	20.2	20.8	20.7	21.2	21.7	21.3	21.8	21.8	22.3	22.8
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, 1031 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 0.1$)

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Range: 0 - 90DEG
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 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:WFR6R12927120WS	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC.	SUR.:21cm*16cm	Shielding Angle:

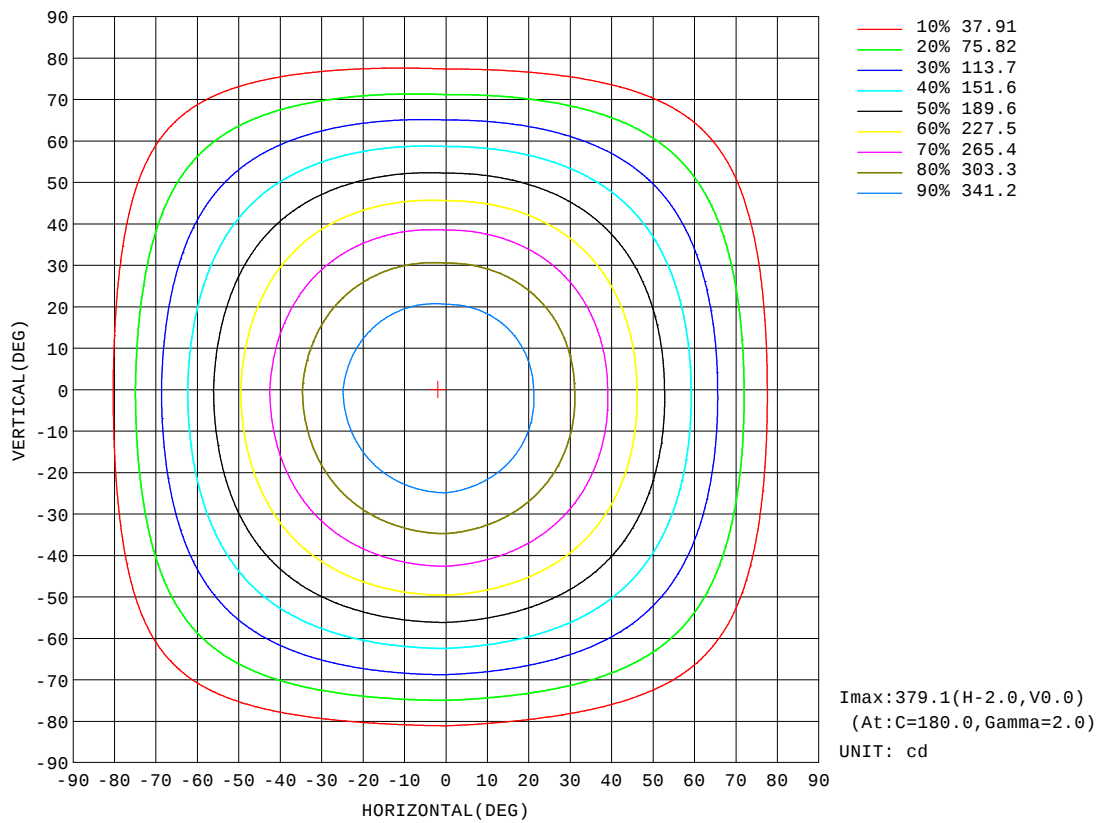
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	58	47	40	58	47	40	56	46	40	33
0.80	68	57	50	67	57	50	66	56	49	42
1.00	77	66	59	76	65	58	73	67	58	51
1.25	84	74	67	82	73	66	80	71	65	58
1.50	89	79	72	87	78	72	84	77	71	63
2.00	96	87	81	94	86	80	90	84	79	71
2.50	100	92	86	97	91	85	94	88	83	75
3.00	103	96	91	101	95	90	97	92	88	79
4.00	107	101	97	104	100	95	100	96	93	84
5.00	109	104	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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ISOCANDELA DIAGRAM

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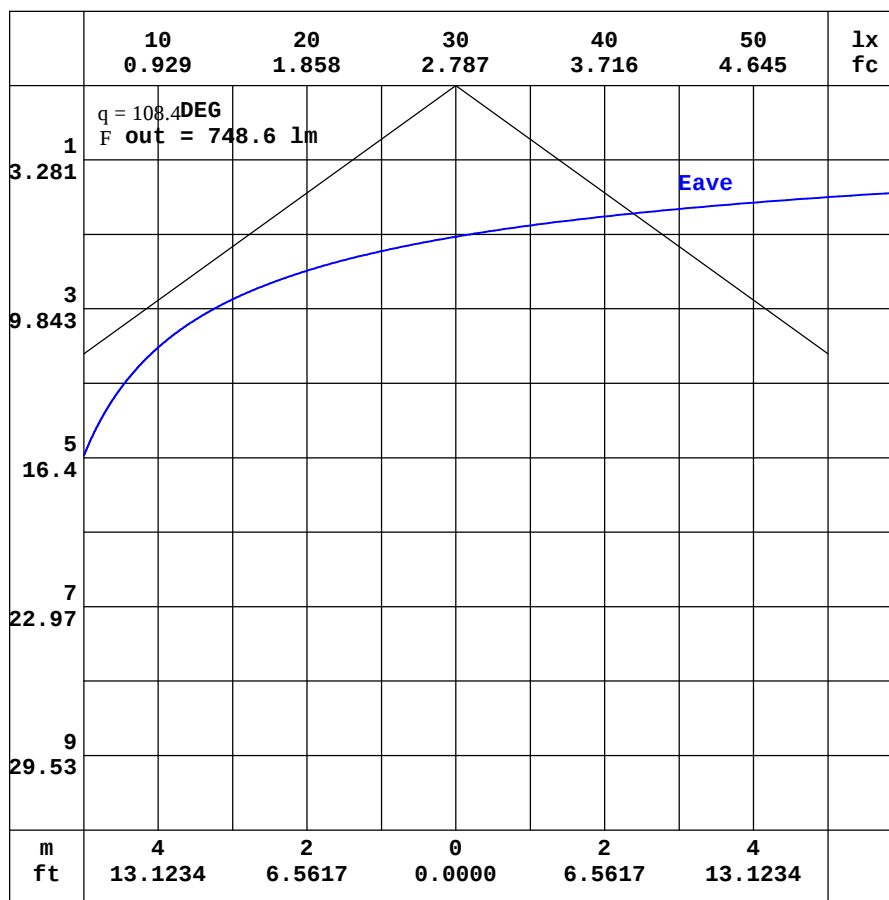


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AAI CURVES

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

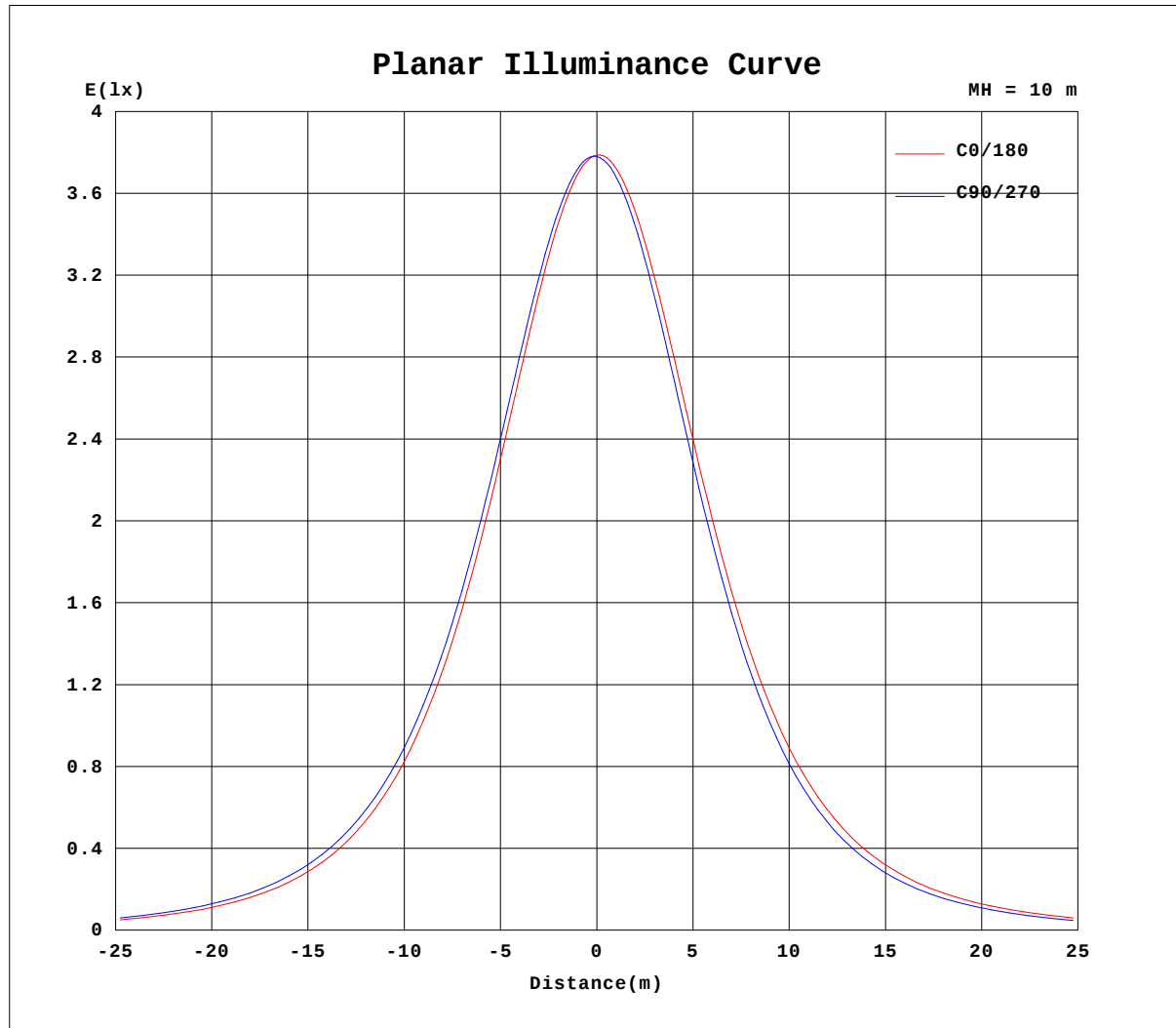


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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Planar Illuminance Curve



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