

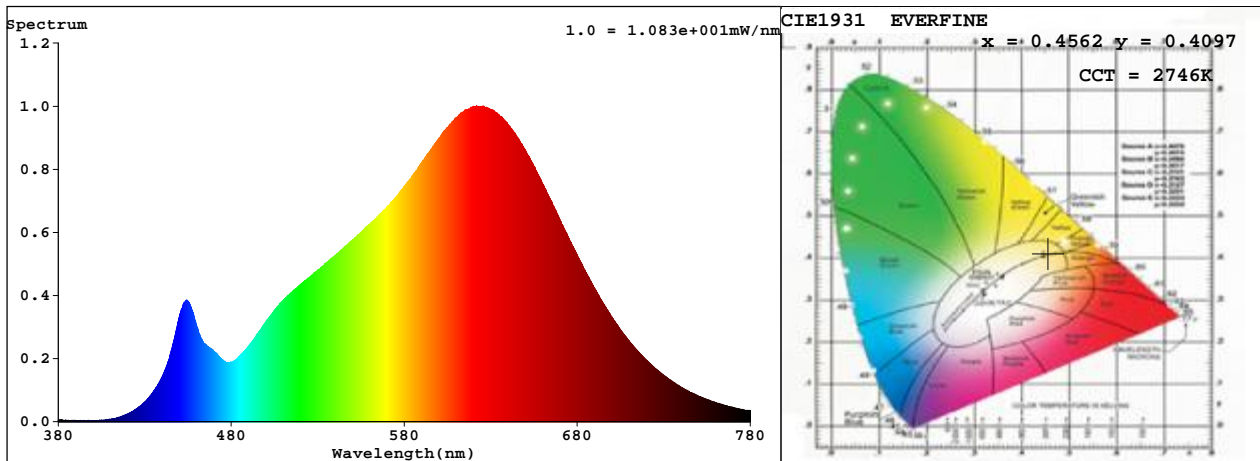
Spectrum Test Report

Sample :	Date :	2019-11-11
Specification : MR16-6.5-927-25D-DIM-G2	Sam. Status :	
Sample No. :	Instrument :	HaasSuite(EVERFINE)
Manufacturer : RAB LIGHTING INC	Test by :	
	Assessor :	damin

Test Condition

Temperature : 21.4Deg	RH :	65.0%
WL Range : 380nm-780nm	IP :	47301 (72%)
Test Mode : Fast Test	T :	96 ms
	Sensitivity :	High

Spectrum



Spectral Distribution

CIE1931 Chromaticity Diagram

Colorimetric Parameters

Chromaticity Coordinate: $x = 0.4562$ $y = 0.4097$ / $u' = 0.2605$ $v' = 0.5264$ ($duv = -1.69e-05$)

CCT= 2746K Prcp WL: Ld=584.0nm Purity=59.9%

Peak WL: Lp=622nm FWHM: =148.2nm Ratio:R=26.1% G=71.4% B=2.5%

Render Index: Ra = 93.0 CRI = 90.4 AvgR = 90.3

R1 =93 R2 =97 R3 =99 R4 =93 R5 =93 R6 =96 R7 =92

R8 =81 R9 =59 R10=92 R11=94 R12=85 R13=94 R14=99 R15=89

WHITE:ANSI_2700K

Photometric & Radiometric Parameters

Flux = 506.12 lm Eff. : 86.05 lm/W Fe = 1.7837 W

Flux of emitted photons(umol/s):8.9202 Flu. and blue light ratio:12.91 Fluorescent eff.:262.2

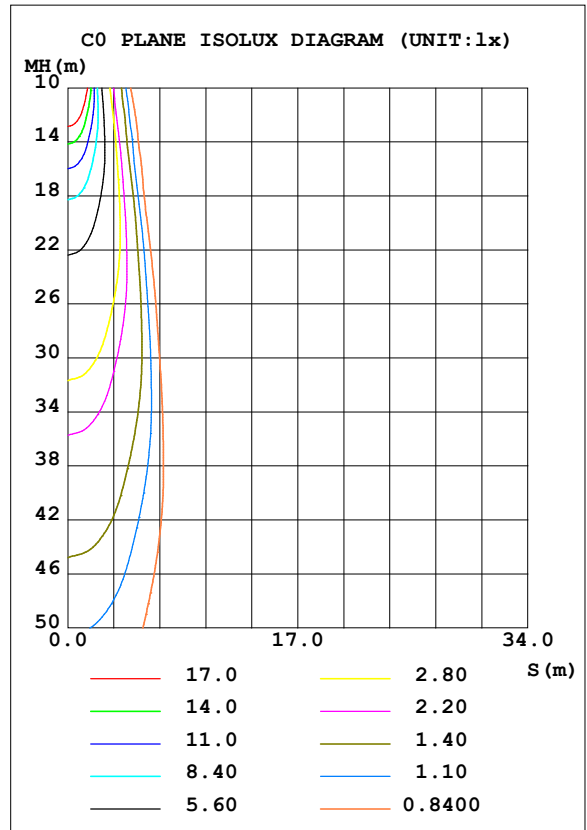
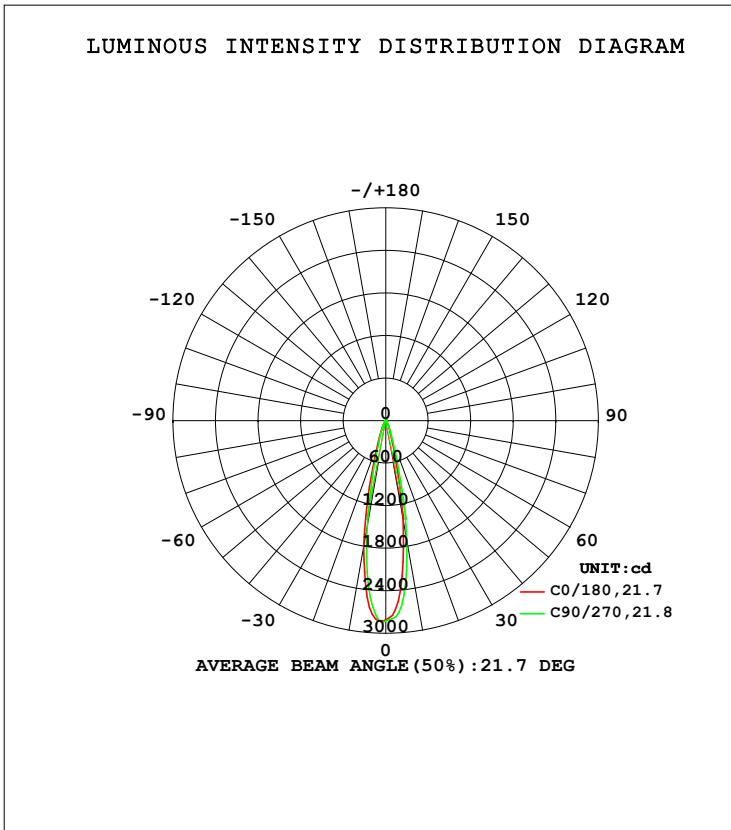
Electrical parameters

V = 11.98 V I = 0.5270 A P = 5.882 W PF = 0.9314 F=59.98 Hz

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:12.07V I:0.5303A P:5.964W PF:0.9315 Freq:59.98Hz Lamp Flux:509.03x1 lm		
NAME: MR16-6.5-927-25D-DIM-G2	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	MR16	Imax (cd)	2846	S/MH (C0/180)	0.38
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)	0.35
RATED VOLTAGE (V)	12	TOTAL FLUX (lm)	509.03	η UP, DN (C0-180)	0.0, 48.0
NOMINAL FLUX (lm)	509.03	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 52.0
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	0.00
TEST VOLTAGE (V)	12	η down (%)	100.0	CIBSE SHR MAX	1.00



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Testing Room
 Test Date: 2019-11-18

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-3000H_V1 SYSTEM V2.0.361
 Humidity: 65.0%
 Test Distance: 11.160m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C90	C180	C270				γ	Φ zone	Φ total	%lum, lamp
10	1403	1713	1793	1521				0- 10	210.9	210.9	41.4,41.4
20	212.7	261.7	293.5	255.3				10- 20	192.3	403.3	79.2,79.2
30	48.06	63.45	74.03	58.01				20- 30	61.90	465.2	91.4,91.4
40	14.13	16.54	19.02	15.72				30- 40	19.27	484.4	95.2,95.2
50	8.706	9.846	9.905	8.687				40- 50	9.495	493.9	97,97
60	5.565	5.949	6.052	5.920				50- 60	6.481	500.4	98.3,98.3
70	3.655	4.055	4.167	3.974				60- 70	4.893	505.3	99.3,99.3
80	1.494	1.749	1.811	1.589				70- 80	2.962	508.3	99.8,99.8
90	0.0158	0.0079	0.0631	0.0237				80- 90	0.7718	509.0	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		

Conical surface Flux(90deg): 489.55 lm

%lum = 96.2%

%lamp = 96.2%

Conical surface Flux(120deg): 500.4 lm

%lum = 98.3%

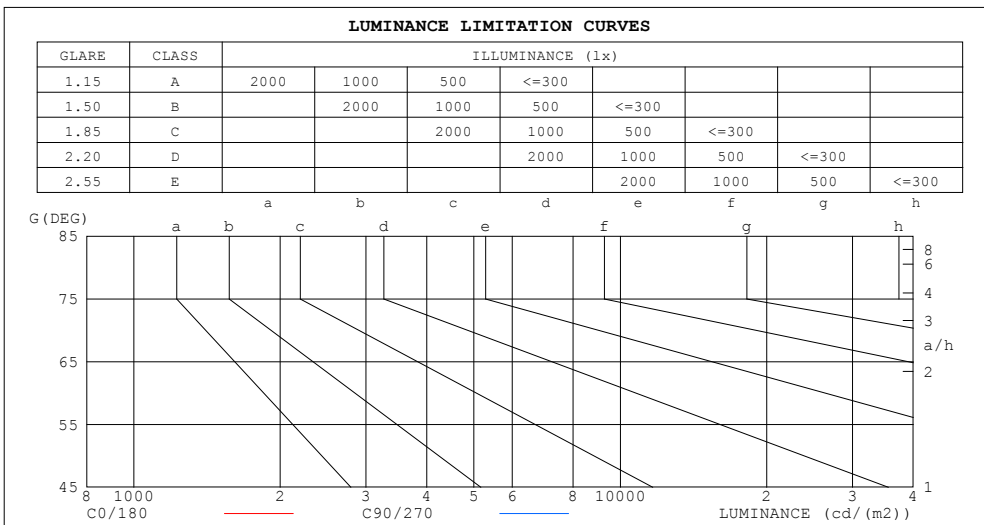
%lamp = 98.3%

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Testing Room
 Test Date:2019-11-18

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-3000H_V1 SYSTEM V2.0.361
 Humidity:65.0%
 Test Distance:11.160m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:12.07V I:0.5303A P:5.964W PF:0.9315 Freq:59.98Hz Lamp Flux:509.03x1 lm		
NAME: MR16-6.5-927-25D-DIM-G2	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	20	27
80	28	33
75	33	37
70	35	39
65	36	39
60	37	39
55	38	42
50	45	51
45	53	57

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Testing Room
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γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
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 Remarks:

WEC AND CCEC

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NAME: MR16-6.5-927-25D-DIM-G2	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC	SUR.:	Shielding Angle:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients (WEC)									
0.0																
1.0	.143	.081	.026	.136	.078	.025	.124	.071	.023	.112	.065	.021	.102	.059	.019	
2.0	.132	.072	.022	.126	.070	.021	.116	.064	.020	.107	.060	.019	.098	.055	.017	
3.0	.122	.065	.019	.117	.063	.019	.109	.059	.018	.101	.055	.017	.094	.052	.016	
4.0	.114	.059	.017	.110	.057	.017	.103	.054	.016	.096	.051	.016	.090	.049	.015	
5.0	.106	.054	.016	.103	.053	.015	.097	.050	.015	.091	.048	.014	.086	.046	.014	
6.0	.100	.050	.014	.097	.049	.014	.092	.047	.014	.087	.045	.013	.082	.043	.013	
7.0	.094	.047	.013	.092	.046	.013	.087	.044	.013	.083	.043	.012	.079	.041	.012	
8.0	.090	.044	.012	.087	.043	.012	.083	.042	.012	.080	.040	.012	.076	.039	.011	
9.0	.085	.041	.012	.083	.041	.011	.080	.039	.011	.076	.038	.011	.073	.037	.011	
10.0	.081	.039	.011	.080	.038	.011	.076	.037	.011	.074	.037	.010	.071	.036	.010	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	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	.169	.158	.148	.144	.135	.127	.099	.093	.088	.057	.054	.051	.018	.017	.017	
2.0	.151	.133	.117	.129	.114	.101	.089	.079	.071	.051	.046	.041	.016	.015	.014	
3.0	.136	.113	.095	.117	.098	.083	.080	.068	.058	.046	.040	.034	.015	.013	.011	
4.0	.123	.098	.079	.106	.085	.068	.073	.059	.048	.042	.035	.028	.014	.011	.009	
5.0	.113	.086	.066	.097	.074	.057	.067	.052	.040	.039	.030	.024	.012	.010	.008	
6.0	.104	.076	.055	.089	.066	.048	.062	.046	.034	.036	.027	.020	.012	.009	.007	
7.0	.096	.067	.047	.083	.058	.041	.057	.041	.029	.033	.024	.017	.011	.008	.006	
8.0	.089	.061	.041	.077	.053	.036	.053	.037	.025	.031	.022	.015	.010	.007	.005	
9.0	.083	.055	.036	.072	.048	.031	.050	.034	.022	.029	.020	.013	.009	.006	.004	
10.0	.078	.050	.031	.068	.044	.027	.047	.031	.019	.027	.018	.012	.009	.006	.004	

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Testing Room
 Test Date:2019-11-18

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-3000H_V1 SYSTEM V2.0.361
 Humidity:65.0%
 Test Distance:11.160m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:12.07V I:0.5303A P:5.964W PF:0.9315 Freq:59.98Hz Lamp Flux:509.03x1 lm										
NAME: MR16-6.5-927-25D-DIM-G2					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.: RAB LIGHTING INC					SUR.:			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	-3.9	-3.2	-3.7	-3.1	-2.9	-3.4	-2.8	-3.2	-2.6	-2.5
3H	-2.6	-2.0	-2.4	-1.8	-1.6	-2.1	-1.5	-1.9	-1.3	-1.2
4H	-2.1	-1.5	-1.8	-1.3	-1.1	-1.6	-1.0	-1.3	-0.8	-0.6
6H	-1.7	-1.1	-1.4	-0.9	-0.7	-1.1	-0.6	-0.9	-0.3	-0.1
8H	-1.6	-1.0	-1.3	-0.8	-0.5	-1.0	-0.5	-0.7	-0.2	0.0
12H	-1.5	-1.0	-1.2	-0.8	-0.5	-0.9	-0.4	-0.6	-0.2	0.1
4H 2H	-3.4	-2.8	-3.1	-2.6	-2.4	-3.0	-2.4	-2.7	-2.2	-2.0
3H	-1.9	-1.3	-1.6	-1.1	-0.8	-1.5	-1.0	-1.2	-0.7	-0.4
4H	-1.2	-0.7	-0.9	-0.4	-0.1	-0.8	-0.3	-0.4	-0.0	0.3
6H	-0.7	-0.3	-0.3	0.0	0.4	-0.2	0.2	0.1	0.5	0.9
8H	-0.6	-0.2	-0.2	0.2	0.5	-0.1	0.3	0.3	0.7	1.0
12H	-0.5	-0.1	-0.1	0.2	0.6	0.0	0.4	0.4	0.8	1.2
8H 4H	-0.9	-0.5	-0.6	-0.2	0.2	-0.6	-0.2	-0.2	0.2	0.5
6H	-0.3	-0.0	0.1	0.4	0.8	0.1	0.4	0.5	0.8	1.2
8H	-0.1	0.2	0.3	0.6	1.0	0.3	0.6	0.8	1.0	1.5
12H	-0.0	0.2	0.4	0.7	1.1	0.5	0.7	0.9	1.2	1.6
12H 4H	-0.9	-0.6	-0.5	-0.2	0.2	-0.6	-0.2	-0.2	0.2	0.5
6H	-0.3	-0.0	0.1	0.4	0.8	0.1	0.4	0.6	0.8	1.3
8H	-0.1	0.2	0.4	0.6	1.1	0.4	0.6	0.8	1.1	1.5
Variations with the observer position at spacings:										
S = 1.0H	+ 0.3 / - 0.4					+ 0.3 / - 0.4				
1.5H	+ 0.2 / - 0.3					+ 0.4 / - 0.3				
2.0H	+ 0.5 / - 0.4					+ 0.5 / - 0.3				

CIE Pub.117, 509.0 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -2.3)

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Testing Room
 Test Date:2019-11-18

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-3000H_V1 SYSTEM V2.0.361
 Humidity:65.0%
 Test Distance:11.160m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:12.07V I:0.5303A P:5.964W PF:0.9315 Freq:59.98Hz Lamp Flux:509.03x1 lm		
NAME: MR16-6.5-927-25D-DIM-G2	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC	SUR.:	Shielding Angle:

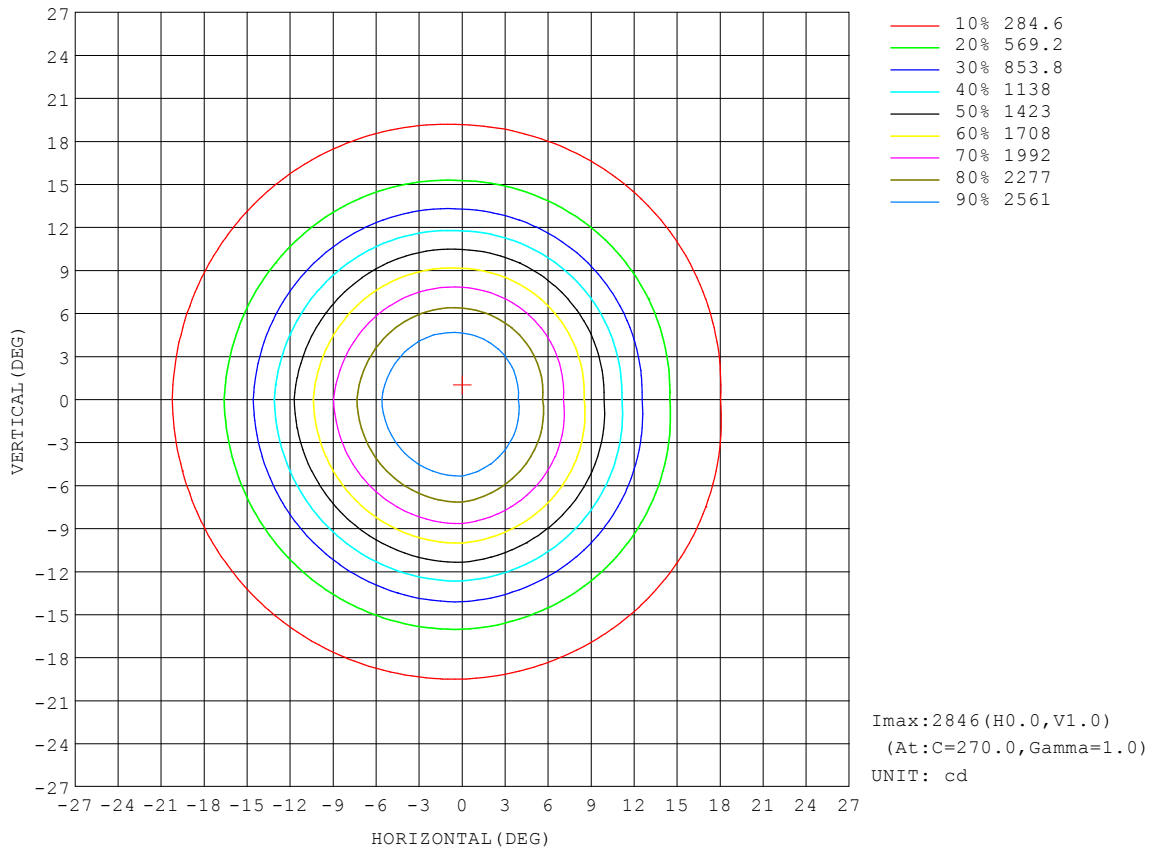
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	89	82	79	88	82	79	87	82	79	75
0.80	96	90	87	95	90	86	94	89	86	82
1.00	100	94	91	99	94	91	97	94	90	86
1.25	104	99	95	103	98	95	101	97	94	90
1.50	106	102	98	105	101	98	103	99	97	92
2.00	109	105	102	107	104	101	105	102	99	94
2.50	110	107	104	109	105	103	106	103	101	95
3.00	112	109	106	110	107	105	107	104	103	96
4.00	114	111	109	112	110	108	108	106	105	98
5.00	115	113	111	113	111	110	109	108	107	99
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

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 Test System:EVERFINE GO-3000H_V1 SYSTEM V2.0.361
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ISOCANDELA DIAGRAM

Test:U:12.07V I:0.5303A P:5.964W PF:0.9315 Freq:59.98Hz Lamp Flux:509.03x1 lm		
NAME: MR16-6.5-927-25D-DIM-G2	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
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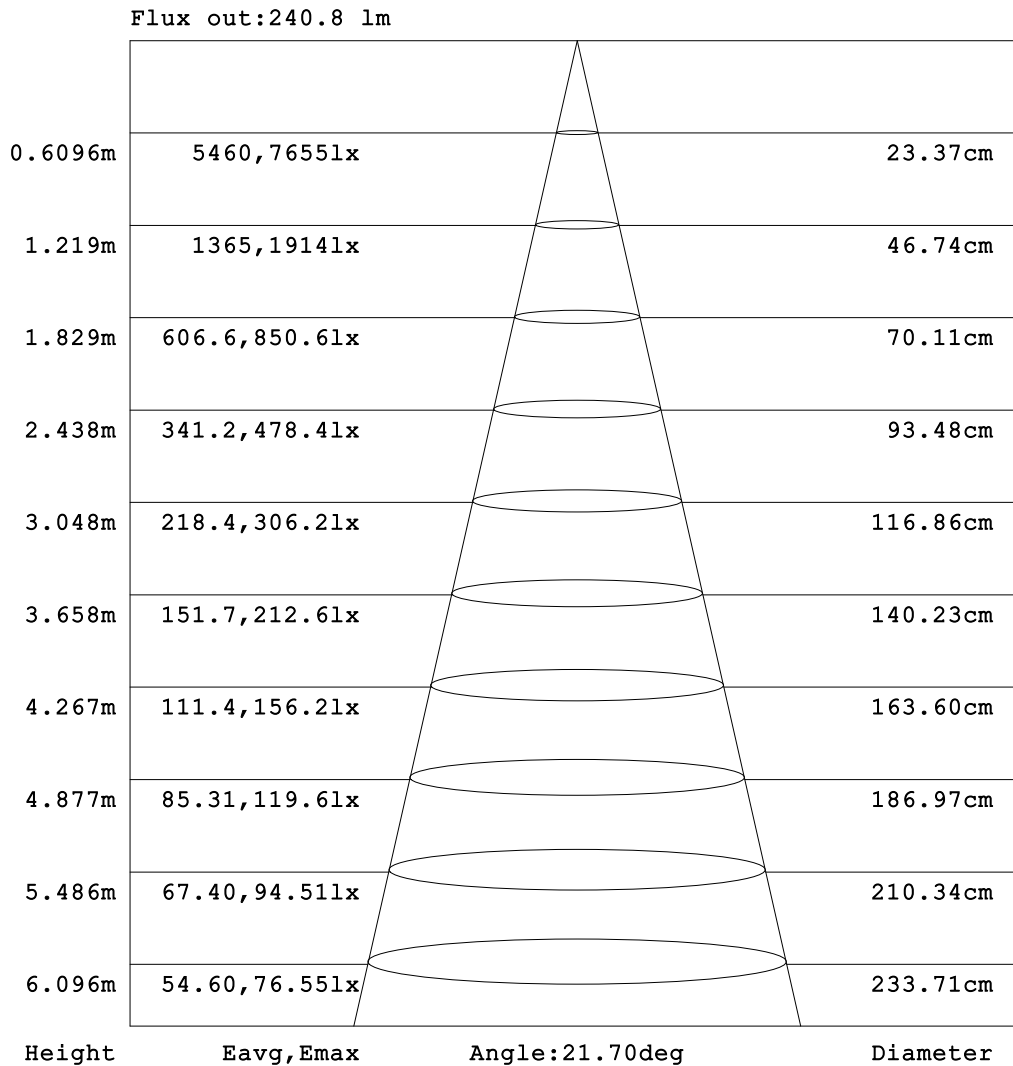


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 Humidity:65.0%
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 Remarks:

AAI Figure

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NAME: MR16-6.5-927-25D-DIM-G2	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
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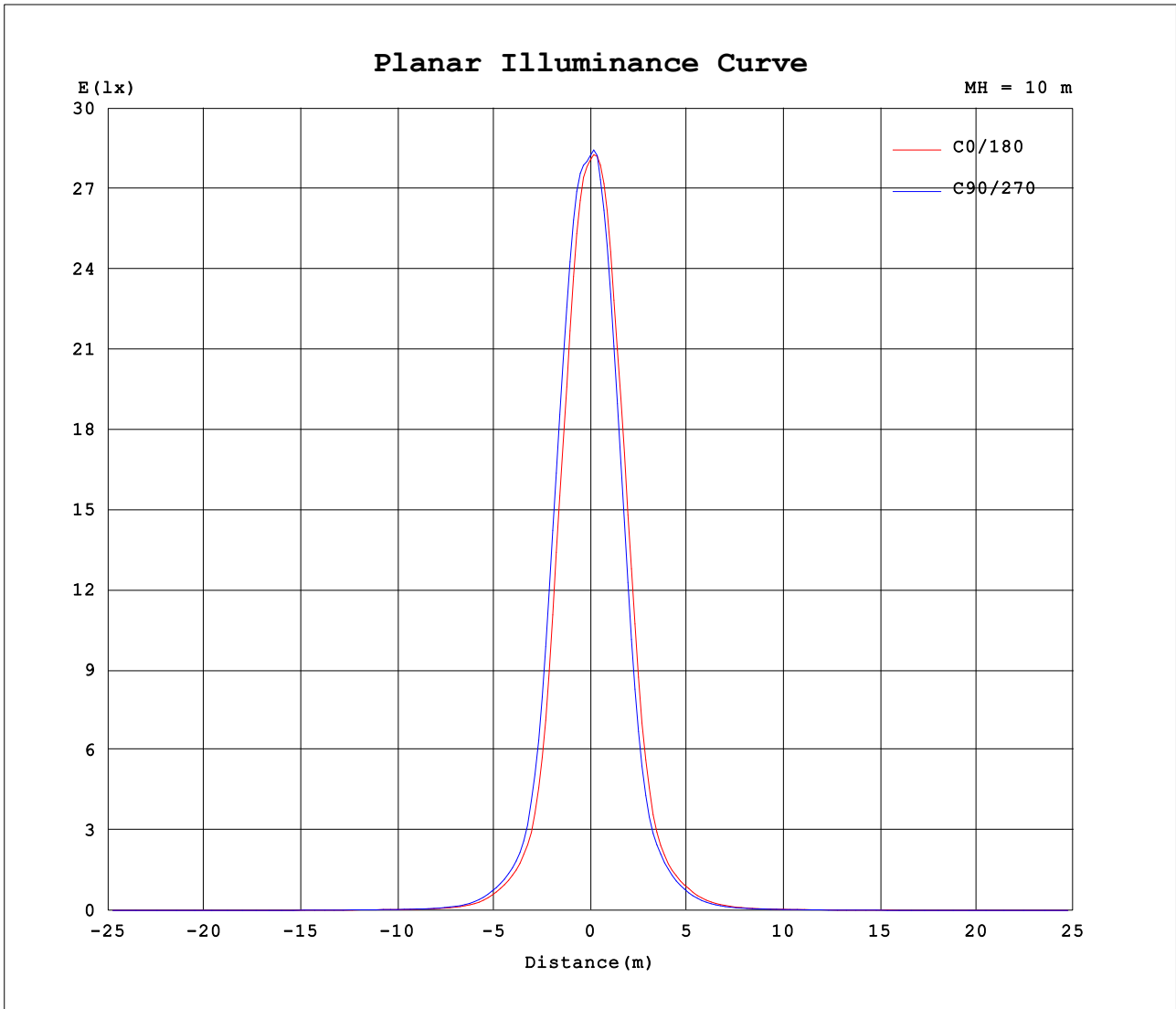


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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Planar Illuminance Curve



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