

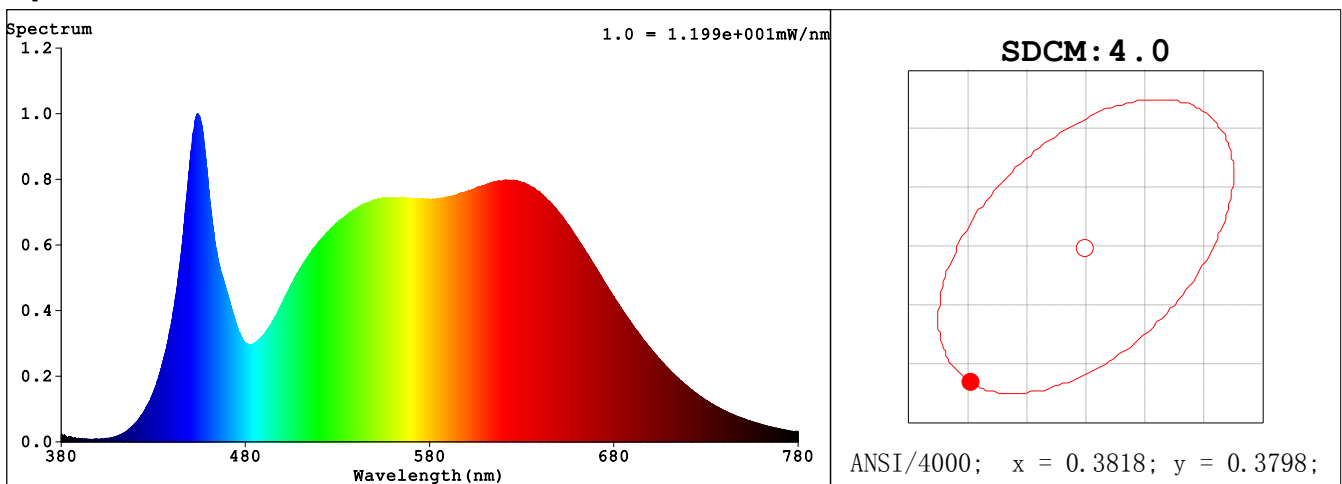
Spectrum Test Report

Sample :	Date : 2020-01-09
Specification : R2R8940120WB	Sam. Status :
Sample No. : 2	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 : 53064 (81%)
Test Mode : Fast Test	T : 416 ms
Sensitivity : High	

Spectrum



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.3760$ $y = 0.3720$ / $u' = 0.2241$ $v' = 0.4988$ ($duv = -9.31e-04$)
 CCT= 4089K Prcp WL: Ld=579.3nm Purity=24.4%
 Peak WL: Lp=454nm FWHM: =24.2nm Ratio:R=19.5% G=76.5% B=4.0%
 Render Index: Ra = 92.7

EEL: 0.15585 A+

R1 =94 R2 =94 R3 =92 R4 =93 R5 =92 R6 =90 R7 =96
 R8 =91 R9 =75 R10=84 R11=91 R12=68 R13=94 R14=95 R15=93
 LEVEL:OUT WHITE:ANSI_4000K

Photometric & Radiometric Parameters

Flux = 623.77 lm Eff. : 76.17 lm/W Fe = 2.1788 W Scotopic:1113.1 S/P:1.7845
 Flux of emitted photons($\mu\text{mol/s}$):10.47 Fluo. and blue light ratio:4.976 Fluorescent eff.:213.7

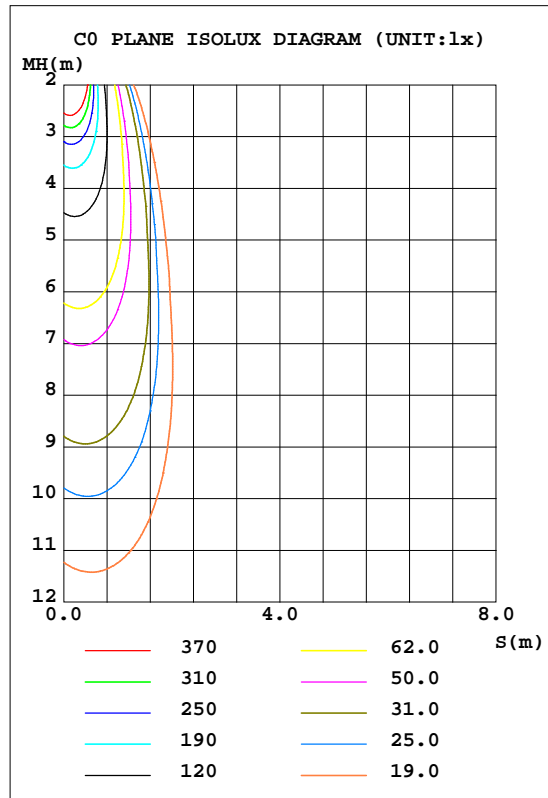
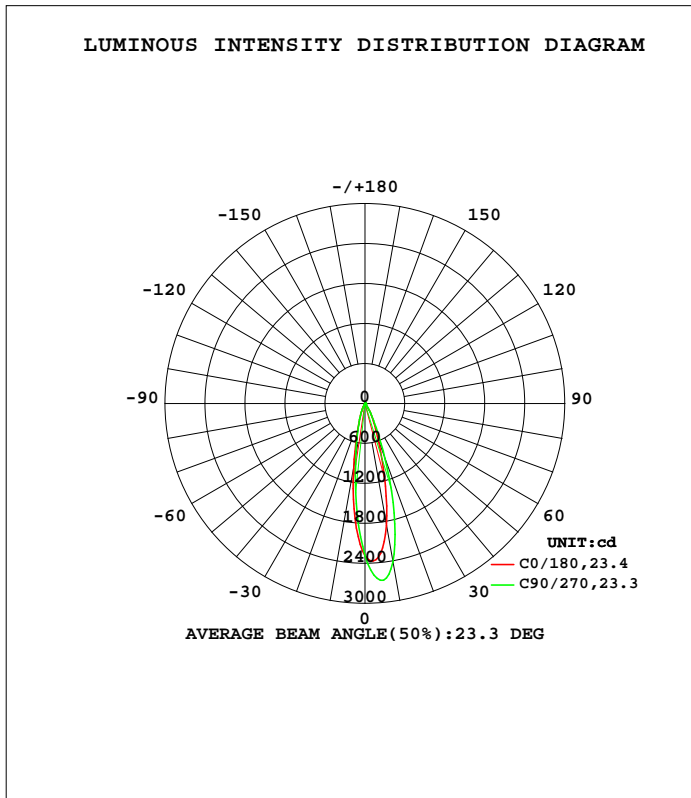
Electrical parameters

V = 120.05 V I = 0.07074 A P = 8.189 W PF = 0.9645 F=59.98 Hz

LUMINAIRE PHOTOMETRIC TEST REPORT

NAME:	TYPE:	WEIGHT:
SPEC.:R2R8940120WB	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC.	SUR.:21cm*16cm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL		Imax(cd)	2665	S/MH(C0/180)	0.31
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	0.25
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	598.38	h UP, DN(C0-180)	0.0, 72.0
NOMINAL FLUX(lm)	598.378	CIE CLASS	DIRECT	h UP, DN(C180-360)	0.0, 28.0
LAMPS INSIDE	1	h up(%)	0.0	CIBSE SHR NOM	0.00
TEST VOLTAGE(V)	120	h down(%)	100.0	CIBSE SHR MAX	1.00



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2020-01-09

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:

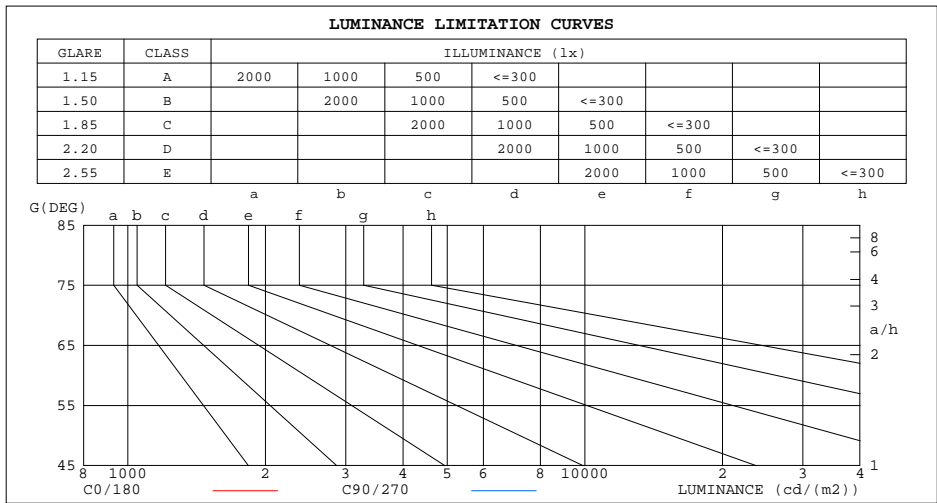
g	C0	C90	C180	C270					g	F zone	F total	%lum,lamp
10	1858	2418	991.5	816.3					0- 10	178.5	178.5	29.8,29.8
20	602.4	894.2	220.6	225.5					10- 20	253.3	431.8	72.2,72.2
30	179.8	186.0	40.09	32.53					20- 30	112.8	544.7	91,91
40	20.48	32.14	9.942	10.87					30- 40	32.84	577.5	96.5,96.5
50	8.634	12.03	6.865	7.058					40- 50	9.068	586.6	98,98
60	5.039	8.763	3.637	3.151					50- 60	6.028	592.6	99,99
70	2.638	3.707	1.954	1.507					60- 70	3.471	596.1	99.6,99.6
80	1.160	1.928	0.6037	0.3116					70- 80	1.780	597.9	99.9,99.9
90	0.0754	0.4678	0	0					80- 90	0.5193	598.4	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:2020-01-09

g Range: 0 - 90DEG
 Interval: 1.0DEG
 Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.0.366
 Humidity:65.0%
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 Remarks:

LUMINANCE LIMITATION CURVES

NAME:	TYPE:	WEIGHT:
SPEC.:R2R8940120WB	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC.	SUR.:21cm*16cm	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	68	129
80	70	105
75	75	103
70	81	103
65	89	109
60	106	166
55	129	181
50	141	178
45	158	228

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 Remarks:

WEC AND CCEC

NAME:	TYPE:	WEIGHT:
SPEC.:R2R8940120WB	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	.148	.084	.027	.141	.081	.026	.129	.074	.024	.118	.068	.022	.107	.062	.020	
2.0	.138	.076	.023	.133	.073	.022	.122	.068	.021	.113	.063	.020	.104	.059	.019	
3.0	.129	.069	.021	.124	.067	.020	.116	.063	.019	.108	.059	.018	.100	.056	.017	
4.0	.121	.063	.019	.117	.061	.018	.110	.058	.017	.103	.055	.017	.097	.053	.016	
5.0	.114	.058	.017	.111	.057	.017	.105	.054	.016	.099	.052	.016	.093	.050	.015	
6.0	.108	.054	.016	.105	.053	.015	.100	.051	.015	.095	.049	.014	.090	.047	.014	
7.0	.103	.051	.014	.100	.050	.014	.096	.048	.014	.091	.047	.014	.087	.045	.013	
8.0	.098	.048	.013	.096	.047	.013	.092	.046	.013	.088	.044	.013	.084	.043	.013	
9.0	.094	.045	.013	.092	.045	.013	.088	.044	.012	.085	.042	.012	.081	.041	.012	
10.0	.090	.043	.012	.088	.042	.012	.085	.041	.012	.082	.040	.012	.079	.040	.011	

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	.169	.158	.147	.145	.135	.127	.099	.093	.088	.057	.054	.051	.018	.017	.016	
2.0	.152	.133	.117	.130	.114	.101	.089	.079	.070	.051	.046	.041	.016	.015	.013	
3.0	.137	.113	.094	.118	.098	.082	.081	.068	.057	.047	.040	.034	.015	.013	.011	
4.0	.125	.098	.077	.108	.085	.067	.074	.059	.047	.043	.035	.028	.014	.011	.009	
5.0	.115	.086	.064	.099	.074	.056	.068	.052	.040	.039	.031	.023	.013	.010	.008	
6.0	.107	.076	.054	.092	.066	.047	.063	.046	.033	.037	.027	.020	.012	.009	.007	
7.0	.099	.068	.046	.085	.059	.040	.059	.041	.029	.034	.024	.017	.011	.008	.006	
8.0	.093	.061	.040	.080	.053	.035	.055	.037	.025	.032	.022	.015	.010	.007	.005	
9.0	.087	.056	.035	.075	.048	.030	.052	.034	.021	.030	.020	.013	.010	.007	.004	
10.0	.082	.051	.030	.071	.044	.027	.049	.031	.019	.029	.018	.011	.009	.006	.004	

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2020-01-09

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:					WEIGHT:				
SPEC.:R2R8940120WB		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	3.4	4.1	3.6	4.2	4.4	3.5	4.2	3.7	4.4	4.5	
3H	3.5	4.1	3.7	4.3	4.5	3.7	4.4	4.0	4.6	4.8	
4H	3.5	4.2	3.8	4.4	4.6	3.9	4.5	4.1	4.7	4.9	
6H	3.6	4.2	3.9	4.4	4.7	4.0	4.6	4.3	4.9	5.1	
8H	3.6	4.2	3.9	4.4	4.7	4.1	4.7	4.4	4.9	5.2	
12H	3.6	4.2	3.9	4.4	4.7	4.2	4.7	4.5	5.0	5.3	
4H 2H	3.3	4.0	3.6	4.2	4.4	3.5	4.1	3.8	4.3	4.5	
3H	3.6	4.1	3.9	4.4	4.6	3.8	4.4	4.1	4.6	4.9	
4H	3.7	4.2	4.0	4.5	4.8	4.0	4.6	4.4	4.8	5.1	
6H	3.8	4.3	4.2	4.6	4.9	4.3	4.7	4.7	5.1	5.4	
8H	3.9	4.3	4.2	4.6	5.0	4.4	4.8	4.8	5.2	5.5	
12H	3.9	4.3	4.3	4.6	5.0	4.5	4.9	4.9	5.3	5.7	
8H 4H	3.7	4.1	4.1	4.5	4.8	4.0	4.5	4.4	4.8	5.2	
6H	3.9	4.3	4.3	4.6	5.1	4.4	4.7	4.8	5.1	5.5	
8H	4.0	4.3	4.4	4.7	5.2	4.6	4.9	5.0	5.3	5.7	
12H	4.1	4.3	4.5	4.8	5.3	4.8	5.0	5.2	5.5	6.0	
12H 4H	3.7	4.1	4.1	4.4	4.8	4.0	4.4	4.4	4.8	5.1	
6H	3.9	4.2	4.4	4.6	5.1	4.4	4.7	4.8	5.1	5.5	
8H	4.0	4.3	4.5	4.7	5.2	4.6	4.9	5.1	5.3	5.8	
Variations with the observer position at spacings:											
S = 1.0H	+ 1.7 / - 1.2					+ 1.7 / - 1.2					
1.5H	+ 3.2 / - 1.1					+ 3.3 / - 1.3					
2.0H	+ 0.3 / - 0.8					+ 0.6 / - 0.9					

CIE Pub.117, 598.4 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -1.8)

C Range: 0 - 360DEG
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 Test Date:2020-01-09

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:	WEIGHT:
SPEC.:R2R8940120WB	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC.	SUR.:21cm*16cm	Shielding Angle:

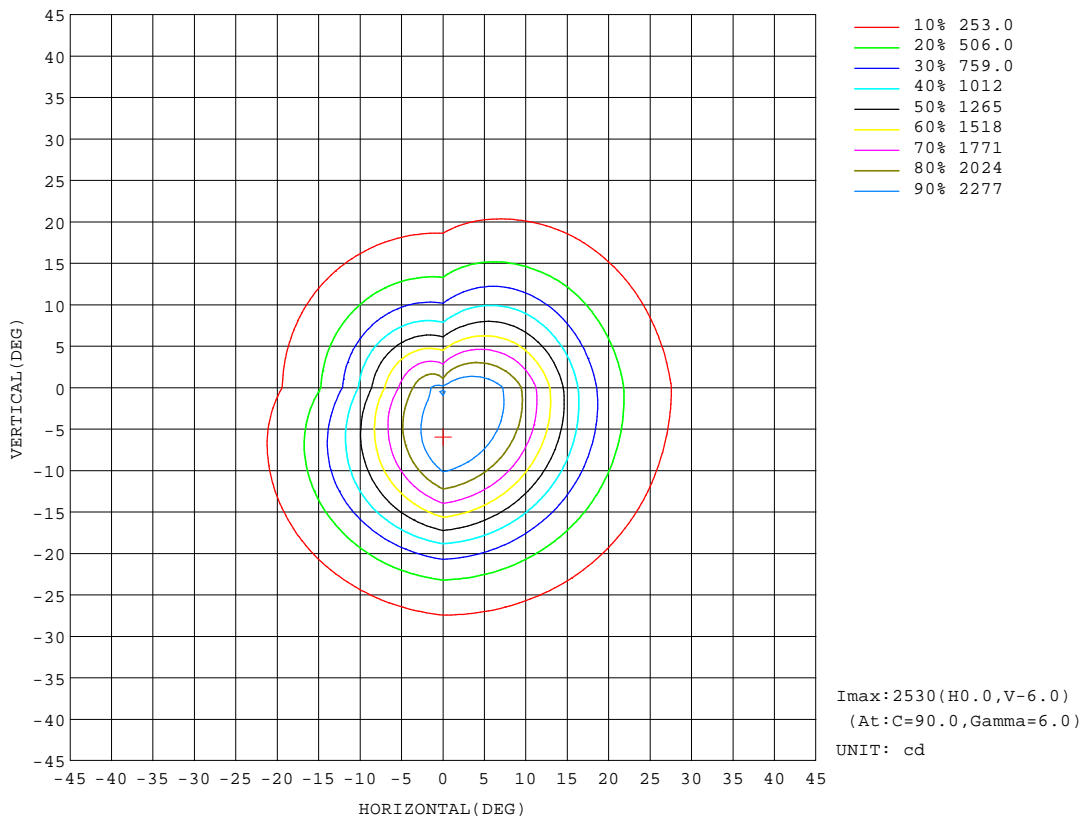
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	89	83	80	89	83	80	88	83	80	76
0.80	97	91	88	96	91	87	95	90	87	84
1.00	101	95	92	100	95	92	98	95	91	87
1.25	104	99	96	103	99	96	101	98	95	91
1.50	107	102	99	106	102	99	103	100	98	93
2.00	109	105	102	108	104	101	105	102	100	95
2.50	111	107	104	109	106	103	106	104	101	96
3.00	112	109	106	110	108	105	107	105	103	97
4.00	114	112	109	112	110	108	109	107	105	98
5.00	115	113	112	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-SPEX500_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:3.200m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

NAME:	TYPE:	WEIGHT:
SPEC.:R2R8940120WB	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC.	SUR.:21cm*16cm	Shielding Angle:



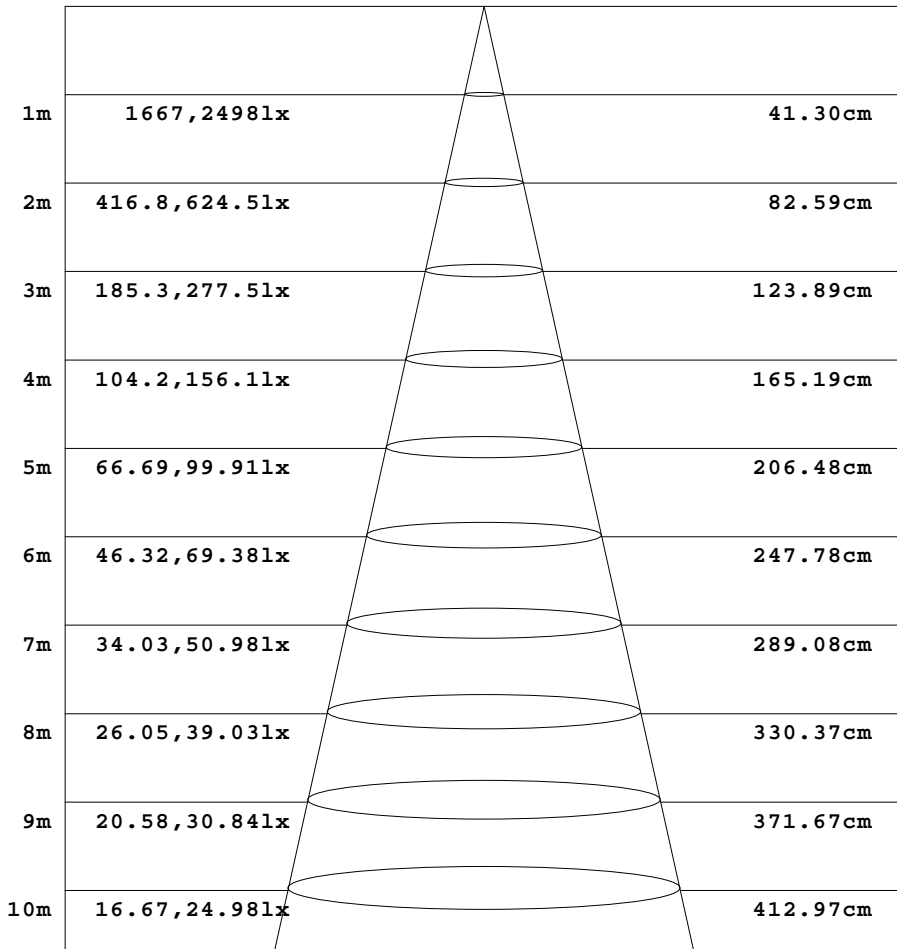
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Remarks:

AAI Figure

NAME:	TYPE:	WEIGHT:
SPEC.:R2R8940120WB	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC.	SUR.:21cm*16cm	Shielding Angle:

Flux out:236.7 lm



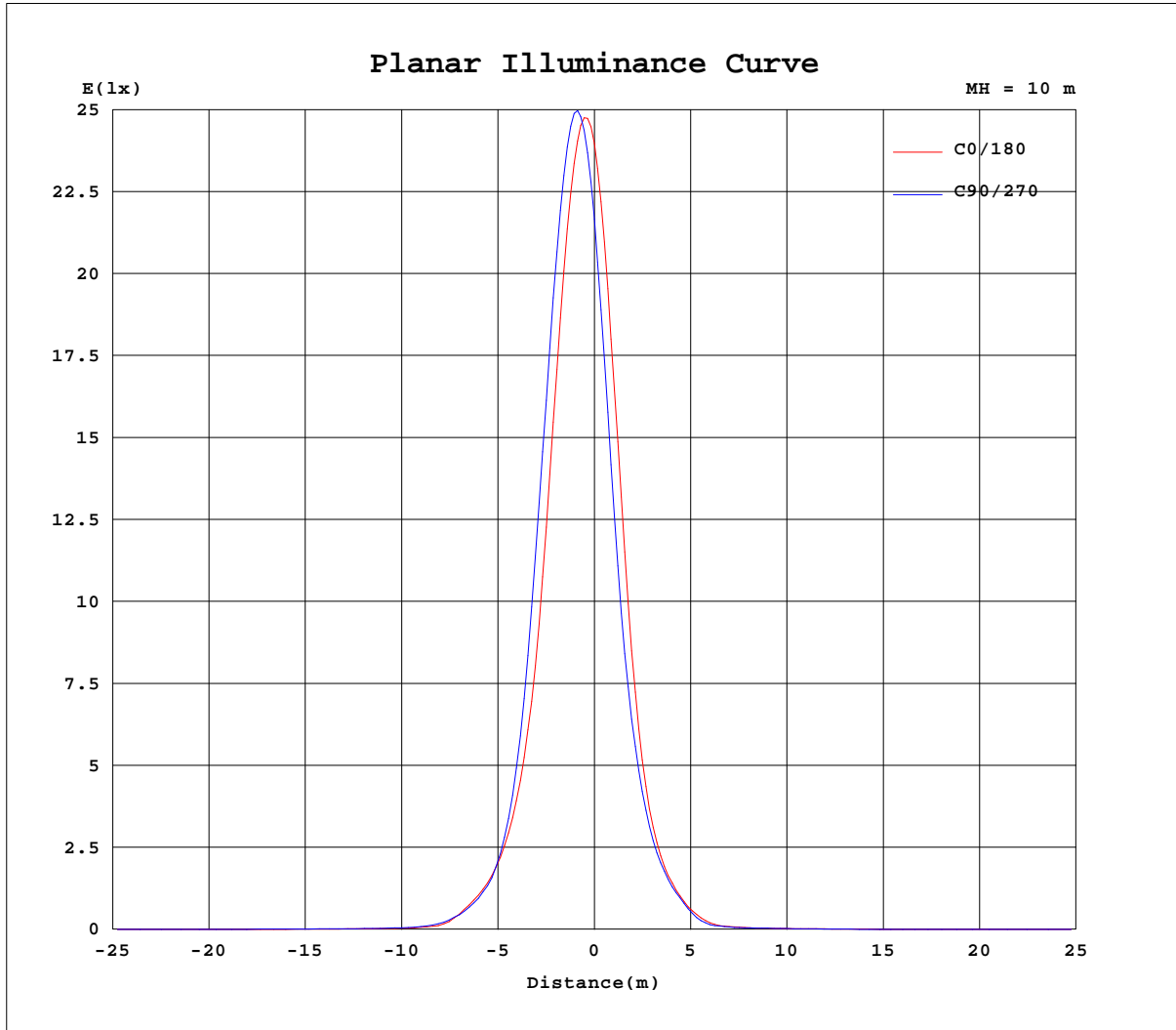
Height Eavg, Emax Angle:23.33deg Diameter

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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 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME:	TYPE:	WEIGHT:
SPEC.:R2R8940120WB	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC.	SUR.:21cm*16cm	Shielding Angle:

Table--1

UNIT: cd

C(DEG) g (DEG)	0	90	180	270																		
0	2282	2282	2282	2282																		
5	2316	2661	1734	1510																		
10	1858	2418	992	816																		
15	1136	1702	461	425																		
20	602	894	221	226																		
25	327	398	109	112																		
30	180	186	40.1	32.5																		
35	82.1	87.5	15.9	14.7																		
40	20.5	32.1	9.94	10.9																		
45	10.6	17.0	8.16	9.17																		
50	8.63	12.0	6.86	7.06																		
55	7.06	10.9	4.87	4.19																		
60	5.04	8.76	3.64	3.15																		
65	3.59	4.87	2.72	2.25																		
70	2.64	3.71	1.95	1.51																		
75	1.85	2.80	1.24	0.82																		
80	1.16	1.93	0.60	0.31																		
85	0.57	1.19	0.04	0.00																		
90	0.08	0.47	0.00	0.00																		

C Range: 0 - 360DEG
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