

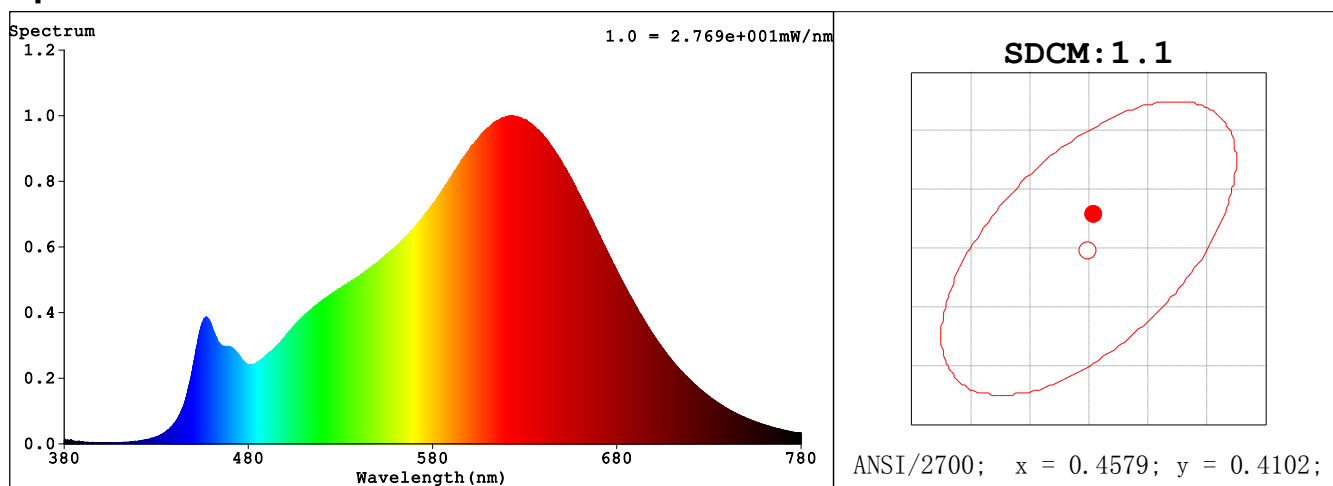
Spectrum Test Report

Sample	:		Date	:	2020-01-10
Specification	:	G3R8940120W	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

Temperature	:	23.9Deg	RH	:	65.0%
WL Range	:	380nm-780nm	IP	:	56757 (87%)
Test Mode	:	Fast Test	T	:	155 ms
Sensitivity	:	High			

Spectrum



Colorimetric Parameters

Chromaticity Coordinate: x = 0.4582 y = 0.4125 / u' = 0.2606 v' = 0.5278 (duv=8.42e-04)

CCT= 2738K Prcp WL: Ld=583.7nm Purity=61.4%

Peak WL: Lp=622nm FWHM: =145.7nm Ratio:R=26.4% G=70.8% B=2.8%

Render Index: Ra = 93.6

EEL: 0.15070 A+

R1 =95	R2 =99	R3 =97	R4 =93	R5 =95	R6 =97	R7 =90	
R8 =82	R9 =63	R10=98	R11=96	R12=84	R13=97	R14=99	R15=90

LEVEL:OUT WHITE:ANSI_2700K

Photometric & Radiometric Parameters

Flux = 1299.2 lm Eff. : 90.38 lm/W Fe = 4.5993 W Scotopic:1738.7 S/P:1.3383

Flux of emitted photons(μ mol/s):23.02 Fluo. and blue light ratio:12.90 Fluorescent eff.:279.0

Electrical parameters

V = 277.02 V I = 0.05523 A P = 14.37 W PF = 0.9395 F=59.98 Hz

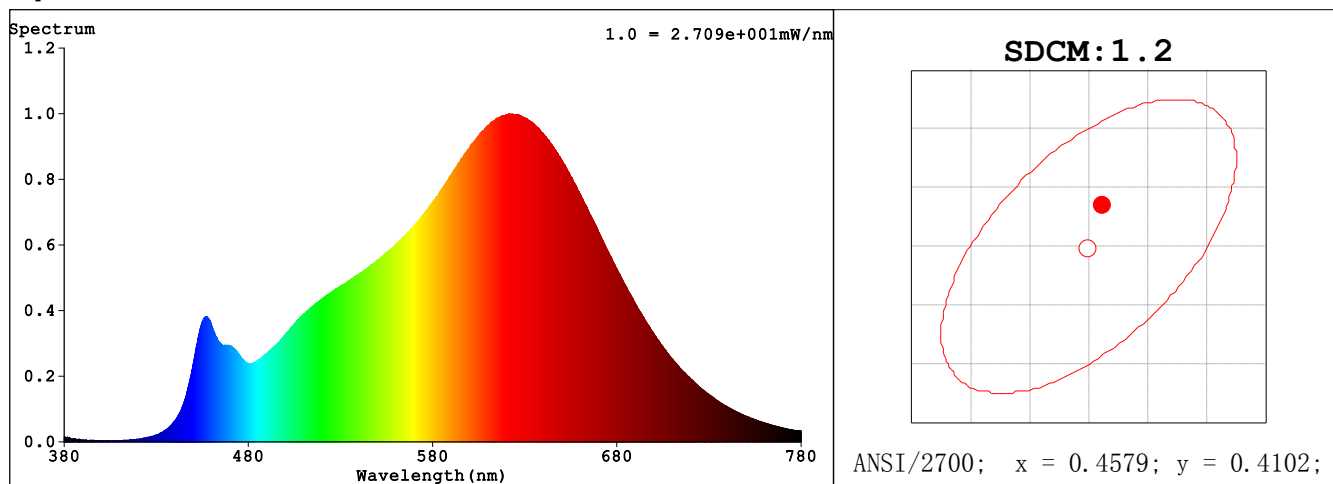
Spectrum Test Report

Sample	:		Date	:	2020-01-10
Specification	:	G3R8940120W	Sam. Status	:	
Sample No.	:	120 1	Standard	:	
Manufacturer	:	RAB LIGHTING INC.	Instrument	:	HaasSuite(EVERFINE)
Assessor	:	damin			
Remark	:	---	Test by	:	DAMIN
Device SN	:	9#			

Test Condition

Temperature	:	23.8Deg	RH	:	65.0%
WL Range	:	380nm-780nm	IP	:	55541 (85%)
Test Mode	:	Fast Test	T	:	155 ms
Sensitivity	:	High			

Spectrum



Colorimetric Parameters

Chromaticity Coordinate: x = 0.4587 y = 0.4129 / u' = 0.2607 v' = 0.5281 (duv=9.61e-04)

CCT= 2735K Prcp WL: Ld=583.7nm Purity=61.6%

Peak WL: Lp=621nm FWHM: =145.7nm Ratio:R=26.4% G=70.8% B=2.8%

Render Index: Ra = 93.6

EEL: 0.14839 A+

R1 =95	R2 =99	R3 =97	R4 =93	R5 =95	R6 =97	R7 =90	
R8 =82	R9 =62	R10=97	R11=96	R12=84	R13=96	R14=99	R15=90

LEVEL:OUT WHITE:ANSI_2700K

Photometric & Radiometric Parameters

Flux = 1262.9 lm Eff. : 91.36 lm/W Fe = 4.4671 W Scotopic:1685.8 S/P:1.3349

Flux of emitted photons(μmol/s):22.361 Fluo. and blue light ratio:12.93 Fluorescent eff.:298.2

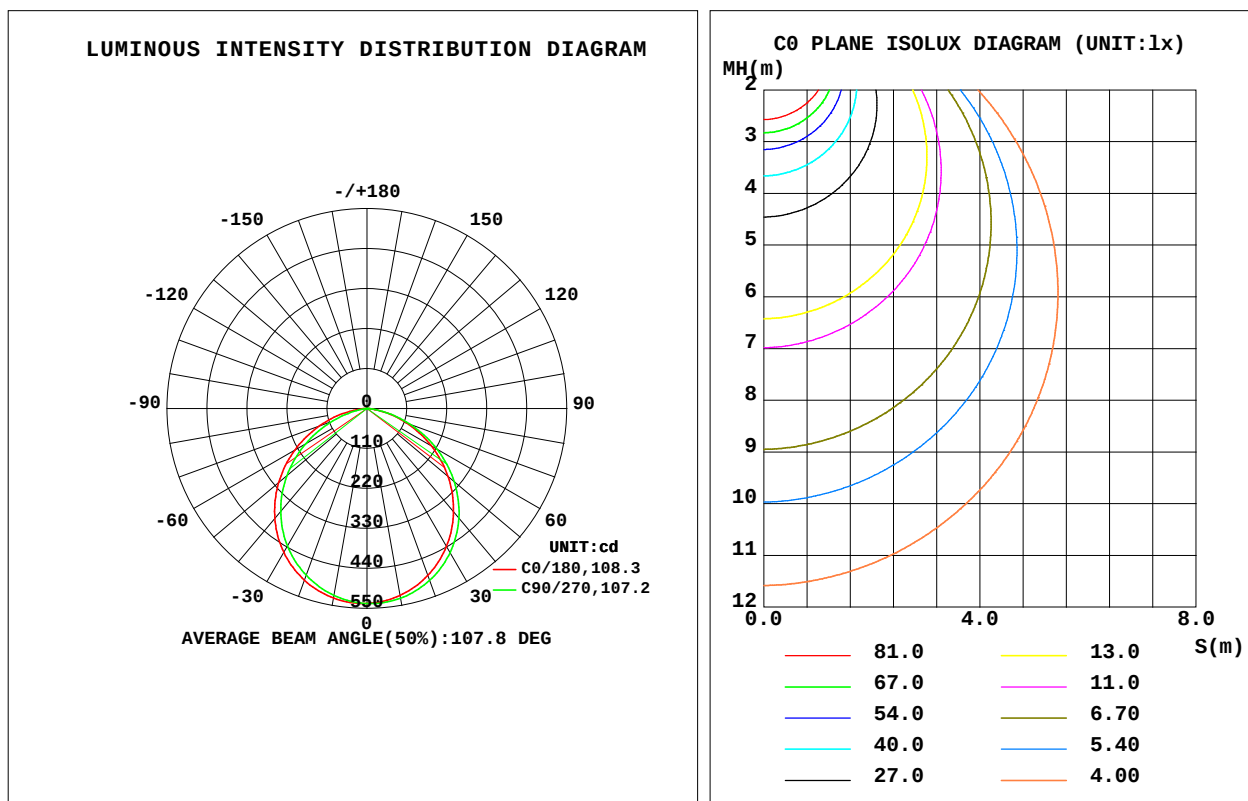
Electrical parameters

V = 120.00 V I = 0.1159 A P = 13.82 W PF = 0.9938 F=59.98 Hz

LUMINAIRE PHOTOMETRIC TEST REPORT

NAME:	TYPE:R6R14927UNVTWS	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC.	SUR.:21cm*16cm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 102.11 lm/W			
MODEL		I _{max} (cd)	536.9	S/MH(C0/180)	1.27
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	1.22
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	1425.8	h UP, DN(C0-180)	0.0,50.0
NOMINAL FLUX(lm)	1425.79	CIE CLASS	DIRECT	h UP, DN(C180-360)	0.0,50.0
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:2020-01-09

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:

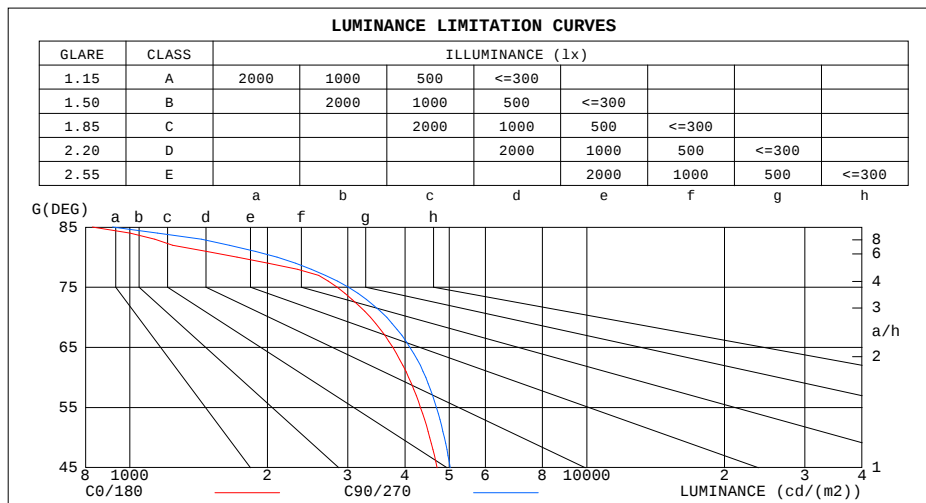
g	C0	C90	C180	C270					g	F zone	F total	%lum, lamp
10	522.3	530.1	529.6	522.2					0- 10	50.71	50.71	3.56, 3.56
20	488.8	503.3	502.9	488.4					10- 20	144.8	195.5	13.7, 13.7
30	438.1	457.7	457.6	437.3					20- 30	218.4	413.9	29, 29
40	370.9	393.8	394.7	369.6					30- 40	260.7	674.6	47.3, 47.3
50	291.2	313.7	317.2	287.8					40- 50	265.1	939.7	65.9, 65.9
60	203.7	222.2	229.5	195.1					50- 60	230.8	1170	82.1, 82.1
70	114.9	124.9	137.8	99.29					60- 70	164.0	1334	93.6, 93.6
80	29.80	36.50	48.63	18.55					70- 80	79.61	1414	99.2, 99.2
90	0.4442	0.5270	0.8059	0.1268					80- 90	11.74	1426	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

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

NAME:	TYPE:R6R14927UNVTWS	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC.	SUR.:21cm*16cm	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	828	917
80	1717	2100
75	2846	3008
70	3362	3649
65	3762	4099
60	4076	4442
55	4327	4689
50	4534	4878
45	4705	5025

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 G0-SPEX500_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:3.200m [K=1.0000]
 Remarks:

WEC AND CCEC

NAME:	TYPE:R6R14927UNVTWS	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	.289	.164	.052	.282	.161	.051	.269	.154	.049	.257	.148	.047	.245	.142	.046	
2.0	.277	.152	.047	.271	.149	.046	.260	.144	.045	.249	.140	.044	.239	.135	.043	
3.0	.260	.138	.041	.254	.136	.041	.244	.132	.040	.234	.128	.039	.226	.125	.039	
4.0	.241	.125	.037	.236	.124	.037	.227	.121	.036	.219	.118	.035	.211	.115	.035	
5.0	.224	.114	.033	.220	.113	.033	.212	.110	.032	.204	.108	.032	.197	.105	.032	
6.0	.209	.105	.030	.205	.104	.030	.198	.101	.029	.191	.099	.029	.185	.097	.029	
7.0	.195	.096	.027	.191	.095	.027	.185	.094	.027	.179	.092	.027	.173	.090	.026	
8.0	.182	.089	.025	.179	.088	.025	.174	.087	.025	.168	.085	.025	.163	.084	.024	
9.0	.171	.083	.023	.169	.082	.023	.163	.081	.023	.159	.079	.023	.154	.078	.023	
10.0	.161	.077	.021	.159	.077	.021	.154	.076	.021	.150	.074	.021	.146	.073	.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	.179	.156	.136	.153	.134	.117	.105	.092	.081	.060	.053	.047	.019	.017	.015	
2.0	.170	.132	.100	.146	.114	.086	.100	.079	.060	.058	.046	.035	.018	.015	.011	
3.0	.162	.114	.076	.139	.099	.066	.096	.068	.046	.055	.040	.027	.018	.013	.009	
4.0	.155	.101	.059	.133	.087	.052	.091	.061	.036	.053	.036	.022	.017	.012	.007	
5.0	.148	.090	.048	.127	.078	.042	.087	.055	.030	.051	.032	.018	.016	.010	.006	
6.0	.141	.082	.040	.121	.071	.035	.083	.050	.025	.048	.029	.015	.016	.010	.005	
7.0	.134	.075	.034	.115	.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	.026	.105	.056	.022	.073	.039	.016	.042	.023	.009	.014	.008	.003	
10.0	.116	.060	.023	.100	.052	.020	.069	.037	.014	.040	.022	.008	.013	.007	.003	

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:R6R14927UNVTWS			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	16.7	18.2	17.0	18.4	18.6	17.0	18.5	17.3	18.7	18.9
	3H	17.9	19.3	18.2	19.5	19.8	18.3	19.7	18.6	19.9	20.1
	4H	18.3	19.6	18.7	19.9	20.1	18.7	20.0	19.0	20.3	20.5
	6H	18.5	19.7	18.9	20.0	20.3	18.9	20.1	19.2	20.4	20.7
	8H	18.5	19.7	18.9	20.0	20.3	18.9	20.1	19.2	20.4	20.7
	12H	18.5	19.6	18.8	19.9	20.2	18.9	20.0	19.2	20.3	20.6
4H	2H	17.3	18.6	17.6	18.8	19.1	17.5	18.8	17.8	19.1	19.3
	3H	18.7	19.8	19.0	20.1	20.4	19.0	20.1	19.3	20.4	20.7
	4H	19.2	20.2	19.6	20.5	20.9	19.5	20.5	19.8	20.8	21.2
	6H	19.4	20.3	19.8	20.7	21.1	19.7	20.7	20.1	21.0	21.4
	8H	19.4	20.3	19.9	20.7	21.0	19.8	20.6	20.2	21.0	21.4
	12H	19.4	20.2	19.9	20.6	21.0	19.8	20.5	20.2	20.9	21.3
8H	4H	19.4	20.2	19.8	20.6	21.0	19.6	20.5	20.0	20.8	21.2
	6H	19.7	20.4	20.1	20.8	21.2	20.0	20.7	20.4	21.1	21.5
	8H	19.7	20.3	20.2	20.8	21.2	20.0	20.7	20.5	21.1	21.5
	12H	19.7	20.3	20.2	20.7	21.2	20.0	20.6	20.5	21.0	21.5
12H	4H	19.3	20.1	19.8	20.5	20.9	19.6	20.4	20.0	20.8	21.2
	6H	19.7	20.3	20.1	20.7	21.2	20.0	20.6	20.4	21.0	21.5
	8H	19.7	20.3	20.2	20.7	21.2	20.0	20.6	20.5	21.0	21.5
Variations with the observer position at spacings:											
S = 1.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.3					
1.5H	+ 0.2 / - 0.4					+ 0.2 / - 0.3					
2.0H	+ 0.3 / - 0.4					+ 0.3 / - 0.4					

CIE Pub.117, 1426 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 1.2)

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:

UTILIZATION FACTORS TABLE

NAME:	TYPE:R6R14927UNVTWS	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC.	SUR.:21cm*16cm	Shielding Angle:

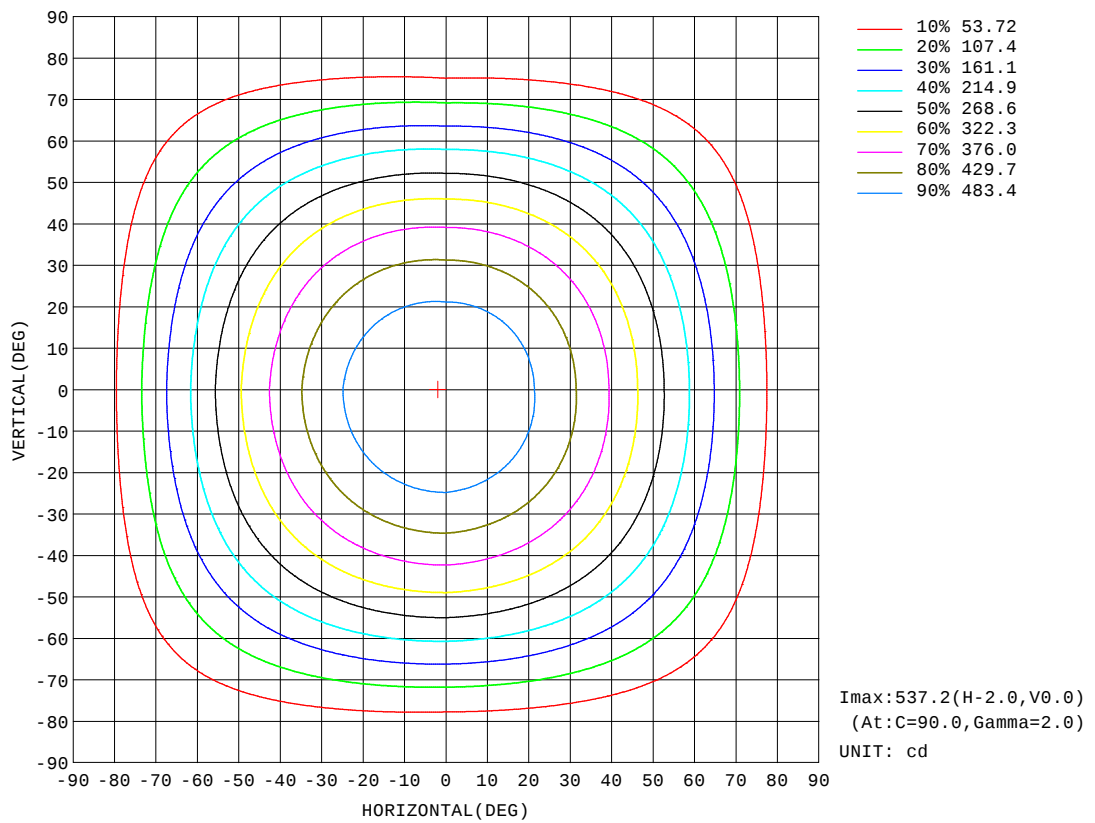
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	59	48	41	58	47	41	57	47	40	34
0.80	69	58	51	68	57	50	66	57	50	43
1.00	78	67	60	76	66	60	74	68	59	52
1.25	85	75	68	83	74	67	81	73	67	60
1.50	90	80	74	88	79	73	85	78	72	65
2.00	96	88	82	95	87	81	91	85	80	72
2.50	100	93	87	98	91	86	94	89	84	76
3.00	103	97	92	101	95	91	97	92	88	80
4.00	107	102	98	105	100	96	101	97	93	85
5.00	109	105	101	107	103	100	103	99	97	88
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:2020-01-09

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:

ISOCANDELA DIAGRAM

NAME:	TYPE:R6R14927UNVTWS	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC.	SUR.:21cm*16cm	Shielding Angle:



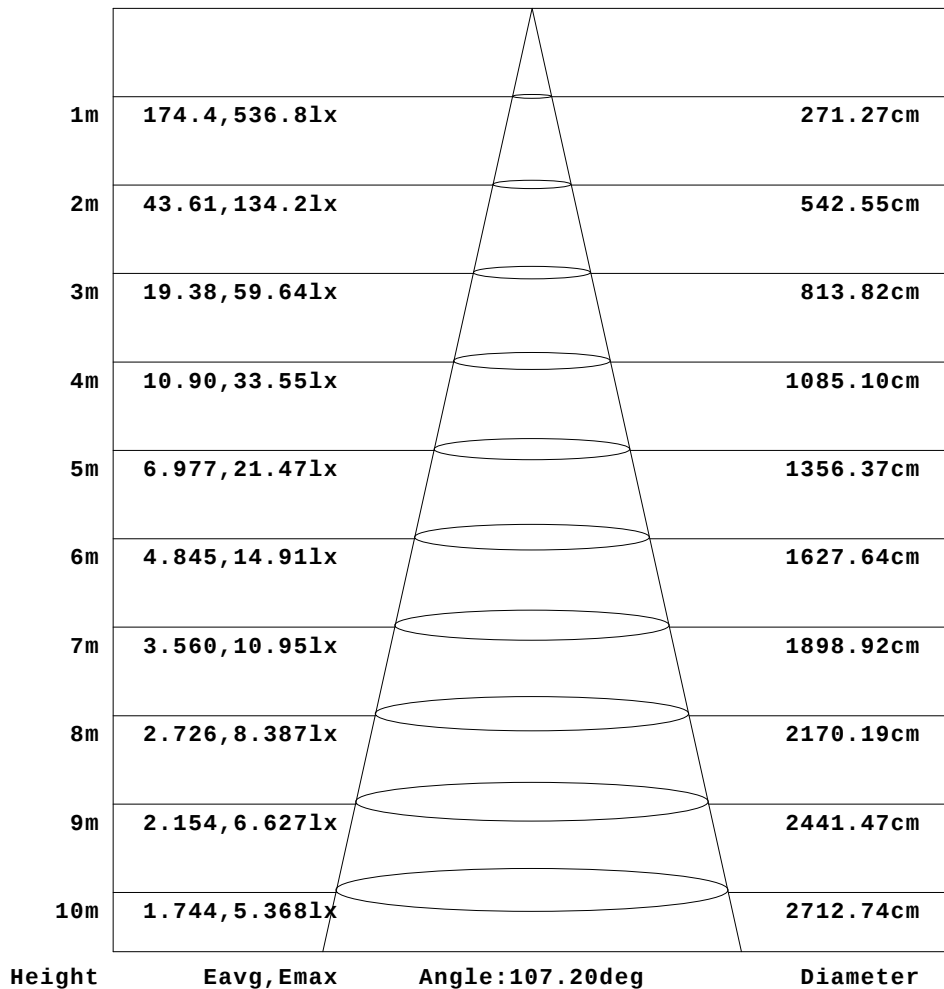
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2020-01-09

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:

AAI Figure

NAME:	TYPE:R6R14927UNVTWS	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC.	SUR.:21cm*16cm	Shielding Angle:

Flux out:1038 lm

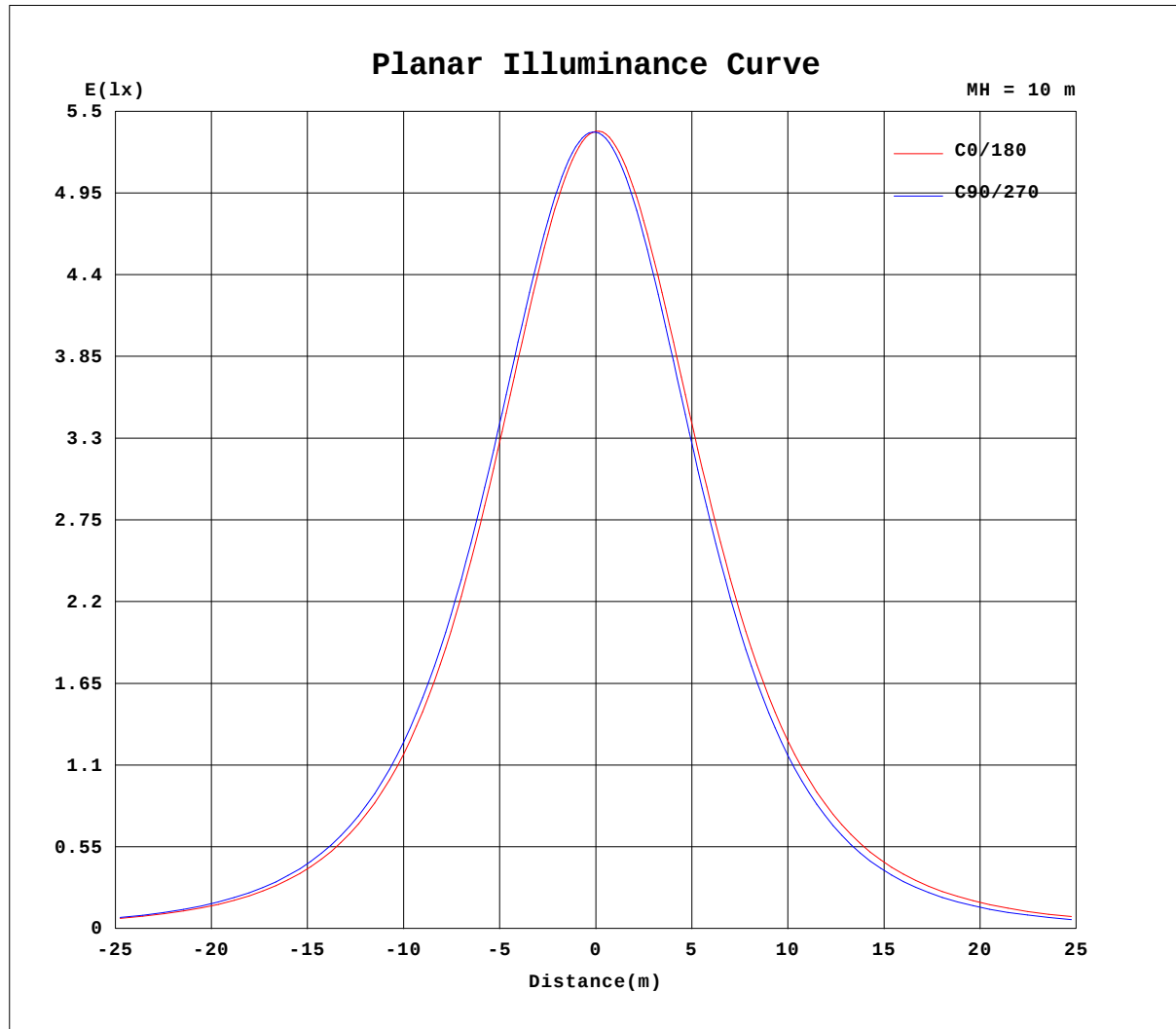


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

Planar Illuminance Curve



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 G0-SPEX500_V1 SYSTEM V2.0.366
 Humidity: 65.0%
 Test Distance: 3.200m [K=1.0000]
 Remarks:

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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:

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