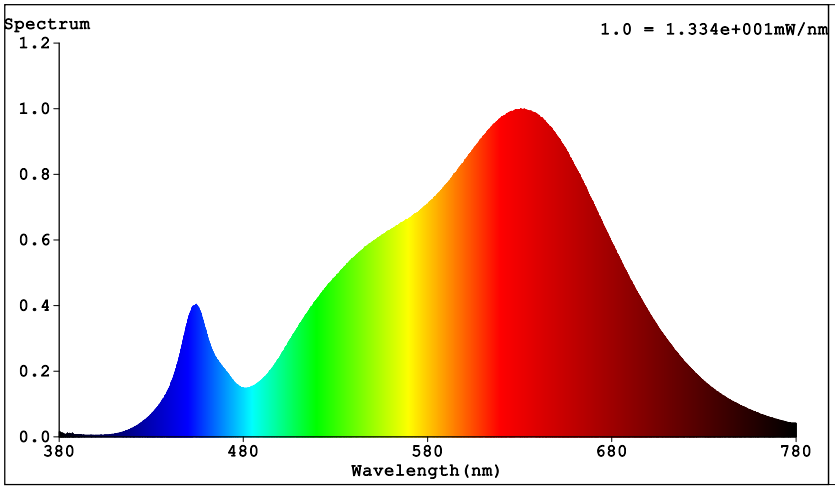
Spectrum Test Report

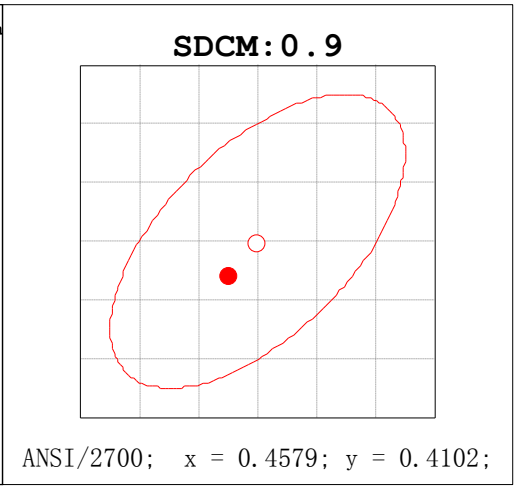
Sample	:	Date	: 2020-01-05
Specification	: G3R8927120W	Sam. Status	:
Sample No.	: 1	Standard	:
Manufacturer	: RAB LIGHTING INC.	Instrument	: HaasSuite(EVERFINE)
Assessor	: damin		
Remark	: ---	Test by	: DAMIN
Device SN	: 9#		

Test Condition

Temprature	: 24.8Deg	RH	: 65.0%
WL Range	: 380nm-780nm	IP	: 52455 (80%)
Test Mode	: Fast Test	T	: 301 ms
Sensitivity	: High		

Spectrum





Colorimetric Parameters

Chromaticity Coordinate: x = 0.4563 y = 0.4081 / u' = 0.2613 v' = 0.5259 (duv=-6.09e-04)

CCT= 2731K Prcp WL: Ld=584.3nm Purity=59.5%

Peak WL: Lp=631nm FWHM: =156.3nm Ratio:R=26.2% G=71.6% B=2.1%

Render Index: Ra = 92.8

EEI: 0.15765 A+

R1 =94	R2 =95	R3 =93	R4 =93	R5 =92	R6 =93	R7 =95	
R8 =87	R9 =70	R10=86	R11=92	R12=78	R13=94	R14=95	R15=92

LEVEL:OUT WHITE:ANSI_2700K

Photometric & Radiometric Parameters

Flux = 618.93 lm Eff. : 75.18 lm/W Fe = 2.2589 W Scotopic:781.25 S/P:1.2623

Flux of emitted photons(μmol/s):11.366 Fluo. and blue light ratio:12.36 Fluorescent eff.:244.9

Electrical parameters

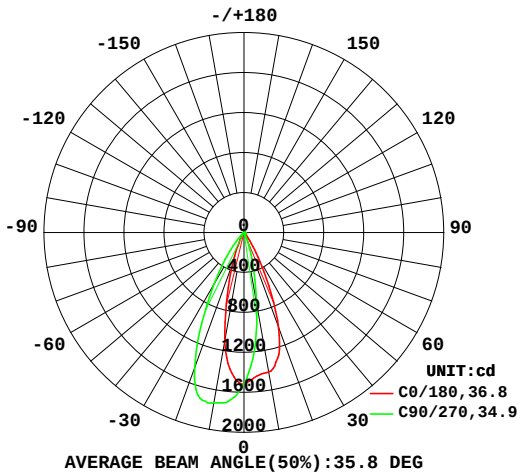
V = 120.13 V I = 0.07104 A P = 8.233 W PF = 0.9649 F=59.98 Hz

LUMINAIRE PHOTOMETRIC TEST REPORT

NAME:	TYPE:G3R8927120W	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC.	SUR.:21cm*16cm	Shielding Angle:

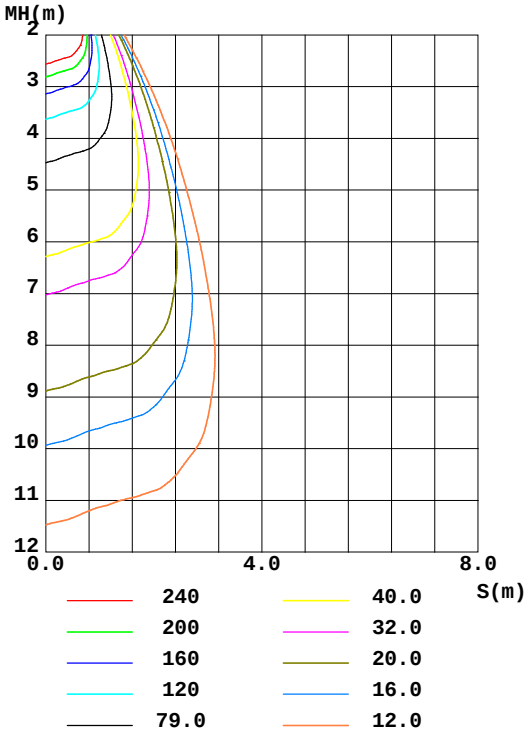
DATA OF LAMP		PHOTOMETRIC DATA Eff: 89.65 lm/W			
MODEL		Imax(cd)	1741	S/MH(C0/180)	0.46
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	0.83
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	736.28	h UP,DN(C0-180)	0.0,40.2
NOMINAL FLUX(lm)	736.277	CIE CLASS	DIRECT	h UP,DN(C180-360)	0.0,59.8
LAMPS INSIDE	1	h up(%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE(V)	120	h down(%)	100.0	CIBSE SHR MAX	0.60

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



AVERAGE BEAM ANGLE(50%):35.8 DEG

C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2020-01-04

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:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

g	C0	C90	C180	C270					g	F zone	F total	%lum,lamp
10	1417	726.7	1117	1730					0- 10	131.0	131.0	17.8,17.8
20	1018	168.3	340.4	1445					10- 20	277.1	408.1	55.4,55.4
30	285.9	25.36	53.21	601.9					20- 30	206.8	614.9	83.5,83.5
40	39.45	12.91	14.29	148.5					30- 40	76.97	691.8	94,94
50	13.63	12.35	13.80	17.66					40- 50	20.53	712.4	96.8,96.8
60	11.76	7.321	9.264	15.22					50- 60	11.25	723.6	98.3,98.3
70	6.845	2.811	4.122	11.64					60- 70	8.732	732.3	99.5,99.5
80	0.7538	0.0730	0.4219	2.283					70- 80	3.556	735.9	99.9,99.9
90	0.0003	0.0169	0	0.3161					80- 90	0.3792	736.3	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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C Interval: 90.0DEG
Test Speed: HIGH
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Test Date:2020-01-04

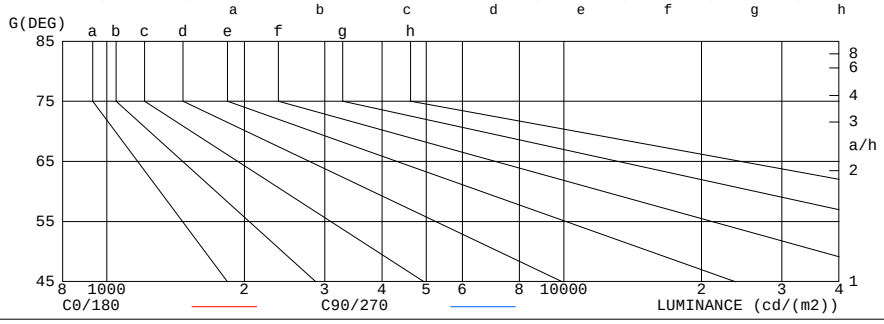
g Range: 0 - 90DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:3.200m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

NAME:	TYPE:G3R8927120W	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC.	SUR.:21cm*16cm	Shielding Angle:

LUMINANCE LIMITATION CURVES

GLARE	CLASS	ILLUMINANCE (lx)							
1.15	A	2000	1000	500	<=300				
1.50	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.20	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	39	8
80	45	4
75	121	42
70	209	79
65	239	110
60	245	140
55	216	173
50	221	184
45	320	180

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g Interval: 1.0DEG
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Humidity:65.0%
Test Distance:3.200m [K=1.0000]
Remarks:

WEC AND CCEC

NAME:	TYPE:G3R8927120W	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC.	SUR.:21cm*16cm	Shielding Angle:

r_{cc}	80%			70%			50%			30%			10%			0
r_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
r_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coeffcients(WEC)									
0.0																
1.0	.166	.095	.030	.160	.091	.029	.147	.084	.027	.136	.078	.025	.125	.072	.023	
2.0	.157	.086	.026	.152	.084	.026	.141	.079	.024	.132	.074	.023	.123	.069	.022	
3.0	.148	.079	.024	.144	.077	.023	.135	.073	.022	.127	.069	.021	.119	.066	.020	
4.0	.140	.073	.021	.136	.071	.021	.129	.068	.020	.122	.065	.020	.115	.063	.019	
5.0	.133	.068	.020	.129	.066	.019	.123	.064	.019	.117	.062	.018	.111	.059	.018	
6.0	.126	.063	.018	.123	.062	.018	.118	.060	.018	.112	.058	.017	.107	.056	.017	
7.0	.120	.059	.017	.118	.059	.017	.113	.057	.016	.108	.055	.016	.103	.054	.016	
8.0	.115	.056	.016	.113	.055	.016	.108	.054	.015	.104	.053	.015	.100	.051	.015	
9.0	.110	.053	.015	.108	.053	.015	.104	.051	.015	.100	.050	.014	.096	.049	.014	
10.0	.105	.051	.014	.104	.050	.014	.100	.049	.014	.097	.048	.014	.093	.047	.013	

r_{cc}	80%			70%			50%			30%			10%			0
r_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
r_{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	.170	.157	.146	.146	.135	.125	.100	.093	.087	.057	.054	.050	.018	.017	.016	
2.0	.154	.133	.114	.132	.114	.099	.091	.079	.069	.052	.046	.040	.017	.015	.013	
3.0	.141	.113	.091	.121	.098	.079	.083	.068	.056	.048	.040	.033	.015	.013	.011	
4.0	.130	.099	.075	.112	.085	.065	.077	.059	.046	.044	.035	.027	.014	.011	.009	
5.0	.121	.087	.062	.104	.075	.054	.071	.052	.038	.041	.031	.022	.013	.010	.007	
6.0	.113	.077	.052	.097	.067	.045	.067	.047	.032	.039	.028	.019	.013	.009	.006	
7.0	.106	.069	.044	.091	.060	.038	.063	.042	.027	.037	.025	.016	.012	.008	.005	
8.0	.100	.063	.038	.086	.055	.033	.059	.038	.023	.035	.023	.014	.011	.007	.005	
9.0	.094	.058	.033	.081	.050	.029	.056	.035	.020	.033	.021	.012	.011	.007	.004	
10.0	.090	.053	.029	.077	.046	.025	.054	.032	.018	.031	.019	.011	.010	.006	.004	

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2020-01-04

γ Range: 0 - 90DEG
γ 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:G3R8927120W	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	4.0	4.9	4.2	5.0	5.2	-0.2	0.6	-0.0	0.8	0.9
3H	4.7	5.5	4.9	5.6	5.8	0.3	1.1	0.6	1.3	1.5
4H	4.8	5.5	5.1	5.7	6.0	0.4	1.1	0.7	1.4	1.6
6H	4.8	5.5	5.1	5.7	5.9	0.3	1.0	0.6	1.3	1.5
8H	4.7	5.4	5.0	5.7	5.9	0.3	1.0	0.6	1.2	1.5
12H	4.7	5.3	5.0	5.6	5.9	0.2	0.9	0.6	1.2	1.4
4H 2H	4.1	4.8	4.3	5.0	5.2	0.4	1.1	0.7	1.4	1.6
3H	4.8	5.5	5.2	5.7	6.0	1.1	1.8	1.4	2.0	2.3
4H	5.0	5.6	5.3	5.9	6.2	1.2	1.8	1.6	2.1	2.4
6H	5.0	5.5	5.3	5.8	6.2	1.1	1.7	1.5	2.0	2.3
8H	4.9	5.4	5.3	5.8	6.1	1.1	1.6	1.5	1.9	2.3
12H	4.9	5.3	5.3	5.7	6.1	1.0	1.5	1.4	1.9	2.2
8H 4H	4.9	5.4	5.3	5.7	6.1	1.3	1.8	1.7	2.1	2.5
6H	4.9	5.3	5.3	5.7	6.1	1.2	1.6	1.6	2.0	2.4
8H	4.9	5.2	5.3	5.6	6.1	1.2	1.5	1.6	1.9	2.4
12H	4.8	5.1	5.3	5.6	6.0	1.1	1.4	1.6	1.9	2.3
12H 4H	4.9	5.3	5.3	5.7	6.1	1.2	1.7	1.7	2.1	2.4
6H	4.8	5.2	5.3	5.6	6.0	1.2	1.5	1.6	1.9	2.4
8H	4.8	5.1	5.3	5.5	6.0	1.1	1.4	1.6	1.9	2.3
Variations with the observer position at spacings:										
S = 1.0H	+ 2.0 / - 1.3					+ 0.6 / - 0.6				
1.5H	+ 3.7 / - 1.3					+ 0.3 / - 1.2				
2.0H	+ 1.1 / - 0.8					+ 0.6 / - 1.1				

CIE Pub.117, 736.3 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -1.1)

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2020-01-04

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:

UTILIZATION FACTORS TABLE

NAME:	TYPE:G3R8927120W	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) x RCR = 5									
k = 0.60	88	82	78	87	81	78	87	81	78	74
0.80	95	89	86	94	89	86	93	88	85	82
1.00	99	94	90	99	93	90	97	93	89	86
1.25	103	98	95	102	98	94	100	96	93	89
1.50	106	101	98	105	100	97	102	99	96	92
2.00	109	104	101	107	103	100	104	101	99	94
2.50	110	106	103	109	105	103	106	103	101	95
3.00	112	108	106	110	107	105	107	104	102	96
4.00	114	111	109	112	109	108	108	106	105	98
5.00	115	113	111	113	111	109	109	108	106	99
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004					Suspended				SHRNOM = 1.25	

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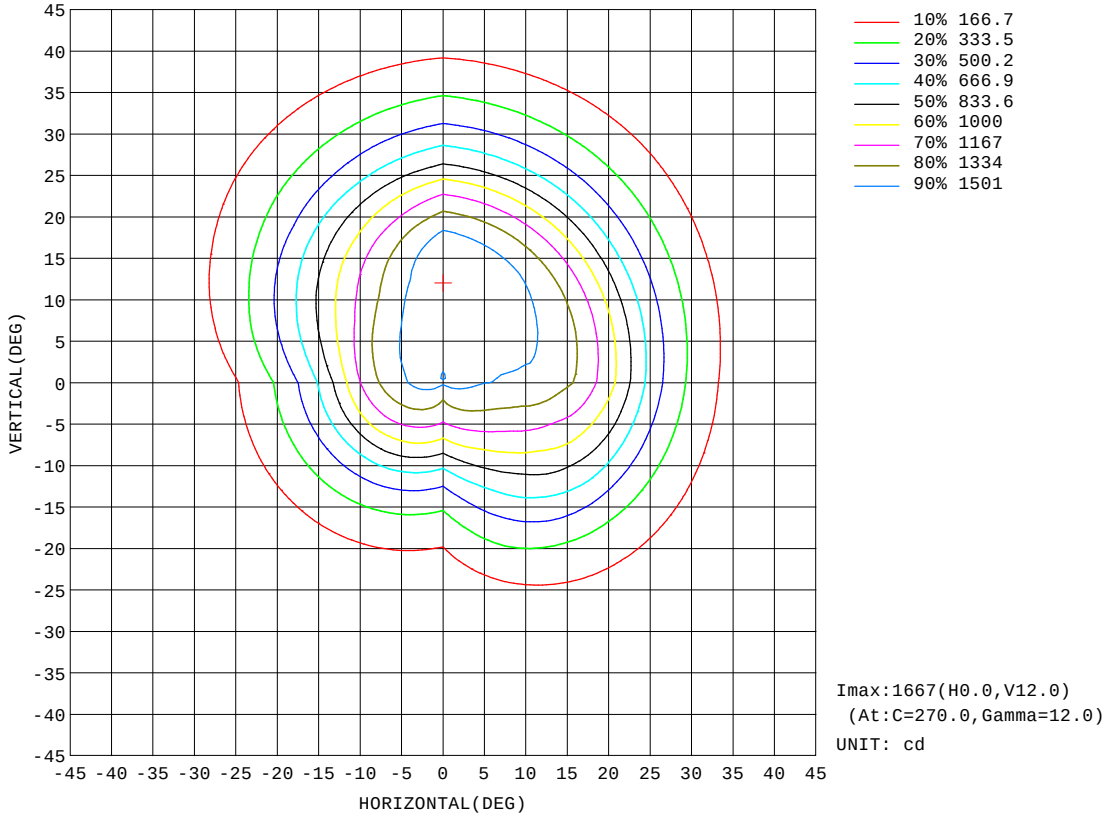
g Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:3.200m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

NAME:	TYPE:G3R8927120W	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC.	SUR.:21cm*16cm	Shielding Angle:



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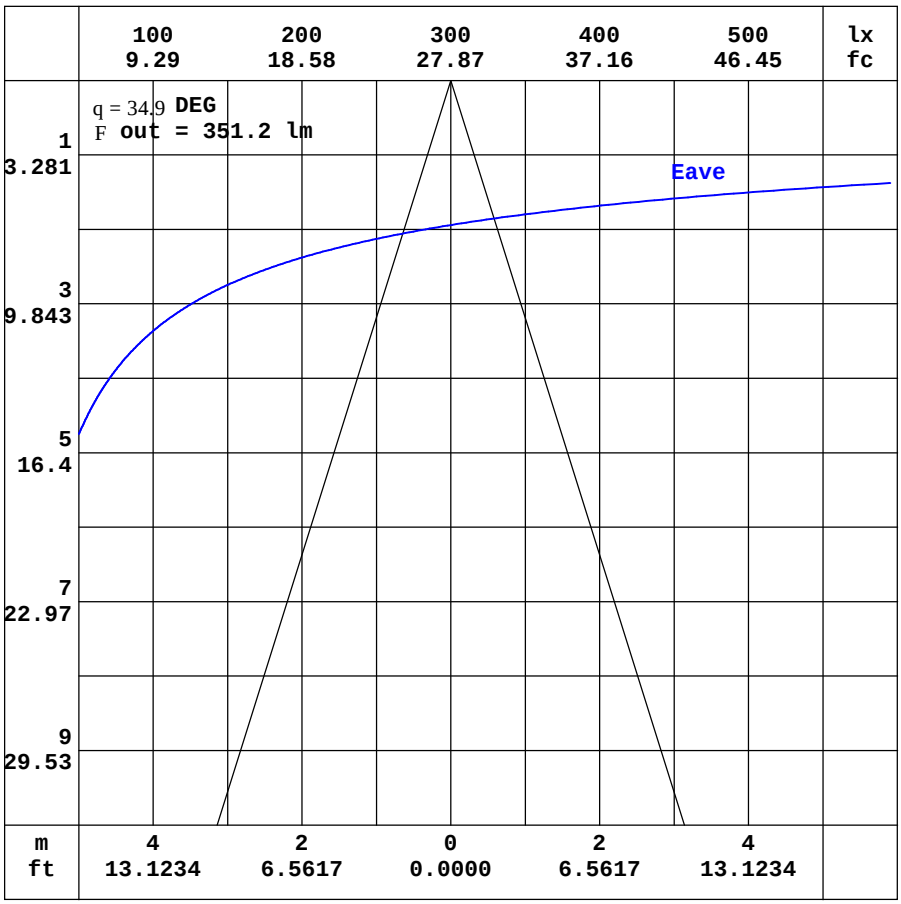
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2020-01-04

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:

AAI CURVES

NAME:	TYPE:G3R8927120W	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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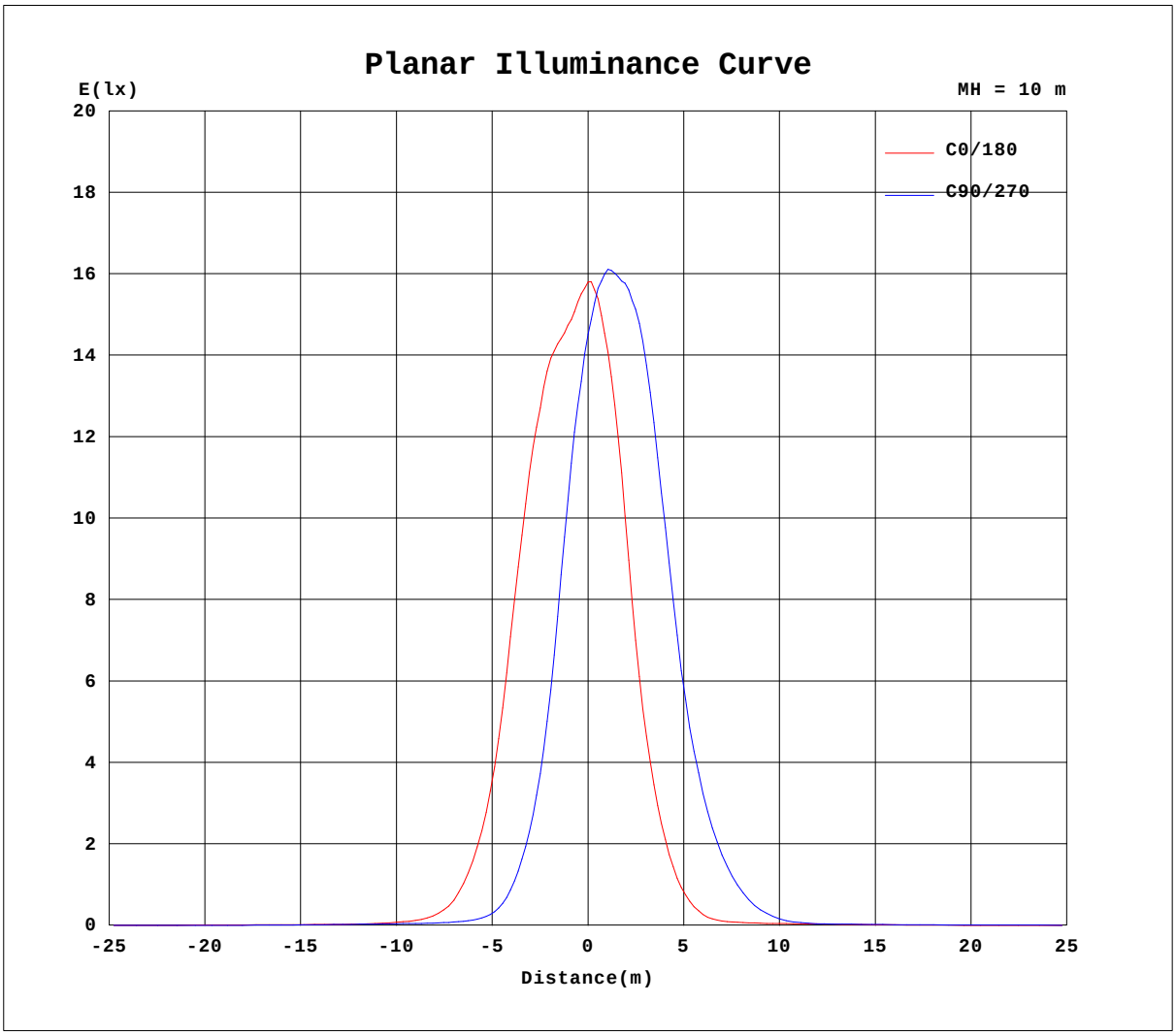
Remarks:

Planar Illuminance Curve



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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:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME:	TYPE:G3R8927120W	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC.	SUR.:21cm*16cm	Shielding Angle:

Table--1 UNIT: cd

γ (DEG) \ C(DEG)	0	90	180	270
0	1516	1516	1516	1516
5	1444	1199	1412	1689
10	1417	727	1117	1730
15	1303	370	651	1713
20	1018	168	340	1445
25	591	60.4	149	1000
30	286	25.4	53.2	602
35	109	16.1	19.1	330
40	39.4	12.9	14.3	149
45	21.7	13.3	12.9	48.9
50	13.6	12.3	13.8	17.7
55	11.9	10.34	12.4	15.6
60	11.8	7.32	9.26	15.2
65	9.68	4.86	6.41	15.0
70	6.84	2.81	4.12	11.6
75	3.00	1.14	2.45	6.81
80	0.75	0.07	0.42	2.28
85	0.32	0.07	0.00	0.60
90	0.00	0.02	0.00	0.32

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