

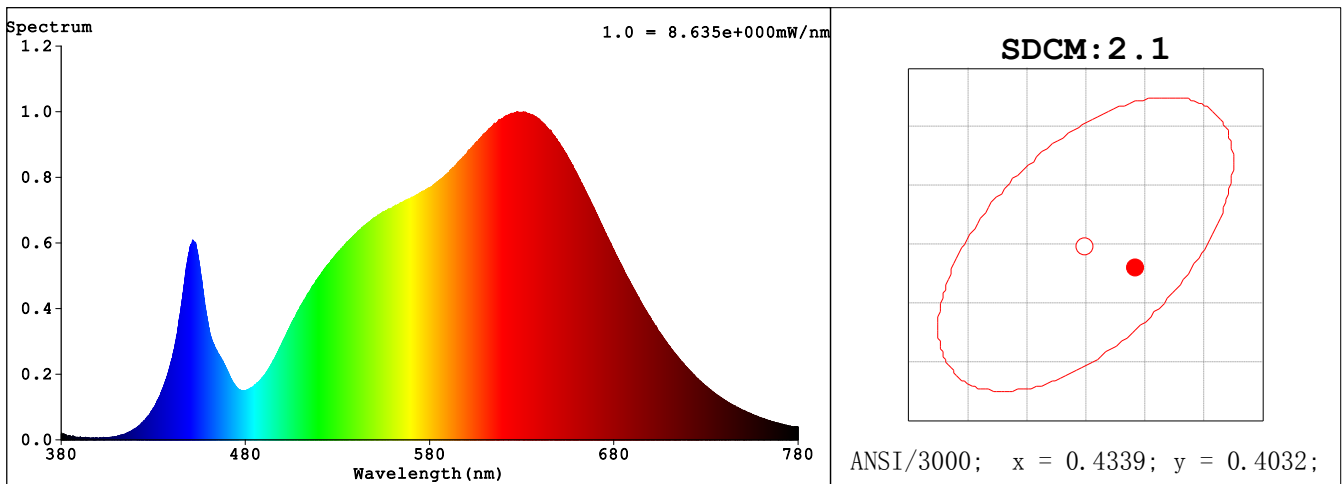
Spectrum Test Report

Sample	:	Date	:	2020-01-09
Specification	:	Sam. Status	:	
Sample No.	:	Standard	:	
Manufacturer	:	Instrument	:	HaasSuite(EVERFINE)
Assessor	:	Test by	:	DAMIN
Remark	:			
Device SN	:			

Test Condition

Temperature	:	24.1Deg	RH	:	65.0%
WL Range	:	380nm-780nm	IP	:	53342 (81%)
Test Mode	:	Fast Test	T	:	472 ms
Sensitivity	:	High			

Spectrum



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.4367$ $y = 0.4019$ / $u' = 0.2513$ $v' = 0.5205$ ($duv = -8.37e-04$)
 CCT= 2986K Prcp WL: Ld=583.2nm Purity=51.7%
 Peak WL: Lp=628nm FWHM: =166.5nm Ratio:R=24.3% G=73.4% B=2.3%
 Render Index: Ra = 91.4

EEL: 0.12744 A+

R1 =93 R2 =93 R3 =91 R4 =92 R5 =91 R6 =90 R7 =94
 R8 =88 R9 =69 R10=82 R11=91 R12=73 R13=93 R14=94 R15=91
 LEVEL:OUT WHITE:ANSI_3000K

Photometric & Radiometric Parameters

Flux = 436.16 lm Eff. : 86.10 lm/W Fe = 1.5492 W Scotopic:591.14 S/P:1.3553
 Flux of emitted photons($\mu\text{mol/s}$):7.7098 Fluo. and blue light ratio:10.03 Fluorescent eff.:263.0

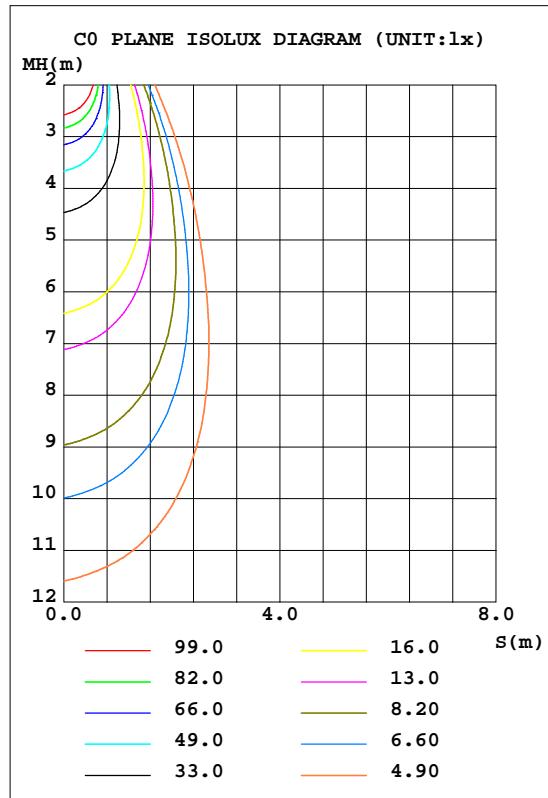
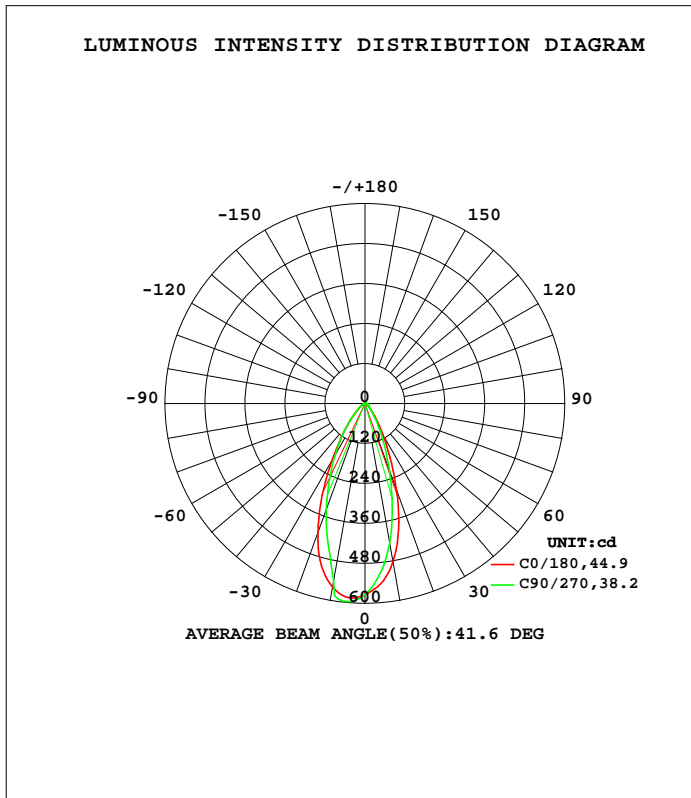
Electrical parameters

V = 120.07 V I = 0.04462 A P = 5.066 W PF = 0.9455 F=59.98 Hz

LUMINAIRE PHOTOMETRIC TEST REPORT

NAME:	TYPE:	WEIGHT:
SPEC.:G2R5930120W	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC.	SUR.:21cm*16cm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL		Imax(cd)	596.7	S/MH(C0/180)	0.79
NOMINAL POWER(W)		LOR(%)	90.9	S/MH(C90/270)	0.72
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	377.20	h UP, DN(C0-180)	0.0,36.1
NOMINAL FLUX(lm)	414.808	CIE CLASS	DIRECT	h UP, DN(C180-360)	0.0,54.9
LAMPS INSIDE	1	h up(%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE(V)	120	h down(%)	90.9	CIBSE SHR MAX	0.70



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:

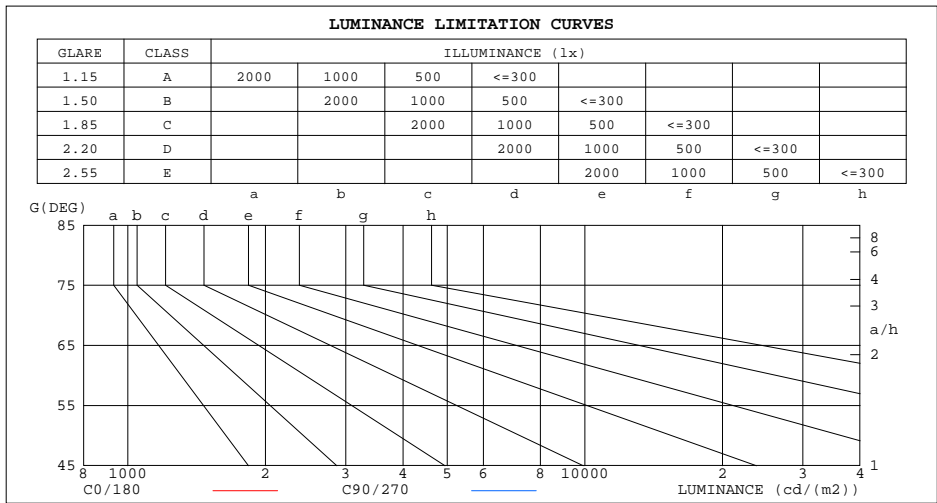
g	C0	C90	C180	C270					g	F zone	F total	%lum,lamp
10	483.4	427.0	559.7	541.9					0- 10	51.91	51.91	13.8,12.5
20	279.1	216.9	414.5	341.3					10- 20	114.7	166.7	44.2,40.2
30	108.5	86.29	200.2	179.7					20- 30	101.9	268.6	71.2,64.7
40	38.49	34.39	74.98	76.28					30- 40	58.33	326.9	86.7,78.8
50	14.70	16.78	26.29	28.21					40- 50	27.20	354.1	93.9,85.4
60	6.898	10.24	10.46	9.805					50- 60	12.74	366.8	97.3,88.4
70	3.055	6.486	4.951	3.908					60- 70	6.499	373.3	99,90
80	0.1156	3.466	2.151	1.220					70- 80	3.254	376.6	99.8,90.8
90	0	0	0.1252	0					80- 90	0.6186	377.2	100,90.9
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%
 Test Distance:3.200m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

NAME:	TYPE:	WEIGHT:
SPEC.:G2R5930120W	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC.	SUR.:21cm*16cm	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	2	161
80	8	170
75	82	165
70	102	162
65	131	163
60	158	175
55	196	192
50	262	223
45	376	283

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G Range: 0 - 90DEG
 G Interval: 1.0DEG
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 Humidity:65.0%
 Test Distance:3.200m [K=1.0000]
 Remarks:

WEC AND CCEC

NAME:	TYPE:	WEIGHT:
SPEC.:G2R5930120W	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	.169	.096	.030	.162	.093	.029	.151	.087	.028	.140	.081	.026	.131	.076	.024	
2.0	.161	.088	.027	.156	.086	.026	.146	.081	.025	.137	.077	.024	.129	.073	.023	
3.0	.152	.081	.024	.148	.079	.024	.139	.076	.023	.132	.072	.022	.125	.069	.021	
4.0	.144	.075	.022	.140	.073	.022	.133	.071	.021	.126	.068	.020	.120	.065	.020	
5.0	.136	.069	.020	.133	.068	.020	.127	.066	.019	.121	.064	.019	.116	.062	.019	
6.0	.129	.065	.019	.126	.064	.018	.121	.062	.018	.116	.060	.018	.111	.058	.017	
7.0	.123	.061	.017	.120	.060	.017	.116	.058	.017	.111	.057	.017	.107	.055	.016	
8.0	.117	.057	.016	.115	.057	.016	.111	.055	.016	.107	.054	.016	.103	.053	.015	
9.0	.112	.054	.015	.110	.054	.015	.106	.052	.015	.102	.051	.015	.099	.050	.015	
10.0	.107	.051	.014	.105	.051	.014	.102	.050	.014	.098	.049	.014	.095	.048	.014	

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	.173	.173	.173	.148	.148	.148	.101	.101	.101	.058	.058	.058	.019	.019	.019	
1.0	.156	.143	.131	.134	.123	.113	.091	.084	.078	.053	.049	.045	.017	.016	.015	
2.0	.143	.120	.102	.122	.104	.088	.084	.072	.061	.048	.042	.036	.015	.013	.012	
3.0	.132	.103	.081	.113	.089	.070	.077	.062	.049	.045	.036	.029	.014	.012	.009	
4.0	.122	.090	.065	.105	.078	.057	.072	.054	.040	.042	.032	.024	.013	.010	.008	
5.0	.114	.079	.054	.098	.069	.047	.068	.048	.033	.039	.028	.020	.013	.009	.006	
6.0	.107	.071	.045	.092	.062	.039	.064	.043	.028	.037	.025	.016	.012	.008	.005	
7.0	.101	.064	.038	.087	.056	.033	.060	.039	.024	.035	.023	.014	.011	.008	.005	
8.0	.096	.058	.033	.083	.051	.029	.057	.036	.020	.033	.021	.012	.011	.007	.004	
9.0	.091	.054	.028	.079	.047	.025	.054	.033	.018	.032	.019	.010	.010	.006	.003	
10.0	.087	.050	.025	.075	.043	.022	.052	.030	.015	.030	.018	.009	.010	.006	.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:					WEIGHT:				
SPEC.:G2R5930120W		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	6.5	7.4	6.7	7.6	7.8	5.6	6.5	5.8	6.7	6.9	
3H	6.8	7.7	7.0	7.9	8.1	6.4	7.3	6.6	7.5	7.7	
4H	6.9	7.7	7.1	7.9	8.1	6.8	7.7	7.1	7.9	8.1	
6H	6.9	7.6	7.2	7.9	8.1	7.3	8.1	7.6	8.3	8.6	
8H	6.8	7.6	7.1	7.8	8.1	7.5	8.2	7.8	8.5	8.8	
12H	6.8	7.5	7.1	7.8	8.0	7.6	8.4	8.0	8.6	8.9	
4H 2H	6.6	7.4	6.8	7.6	7.8	5.8	6.6	6.0	6.8	7.1	
3H	7.0	7.7	7.3	8.0	8.3	6.8	7.5	7.1	7.8	8.1	
4H	7.2	7.9	7.6	8.2	8.5	7.4	8.0	7.7	8.3	8.6	
6H	7.2	7.8	7.6	8.2	8.5	7.9	8.5	8.3	8.9	9.2	
8H	7.2	7.7	7.6	8.1	8.5	8.2	8.8	8.6	9.1	9.5	
12H	7.1	7.6	7.6	8.0	8.4	8.4	8.9	8.9	9.3	9.7	
8H 4H	7.3	7.8	7.7	8.2	8.6	7.5	8.0	7.9	8.4	8.7	
6H	7.4	7.8	7.8	8.2	8.6	8.1	8.6	8.6	9.0	9.4	
8H	7.4	7.8	7.8	8.2	8.6	8.5	8.9	8.9	9.3	9.7	
12H	7.3	7.7	7.8	8.1	8.6	8.8	9.1	9.3	9.6	10.1	
12H 4H	7.3	7.8	7.7	8.2	8.6	7.4	7.9	7.8	8.3	8.7	
6H	7.4	7.8	7.8	8.2	8.6	8.1	8.5	8.6	8.9	9.4	
8H	7.4	7.7	7.9	8.2	8.6	8.5	8.8	9.0	9.3	9.8	
Variations with the observer position at spacings:											
S = 1.0H	+ 1.5 / - 1.6					+ 0.6 / - 0.6					
1.5H	+ 2.5 / - 1.3					+ 0.8 / - 0.5					
2.0H	+ 2.1 / - 1.1					+ 0.8 / - 0.4					

CIE Pub.117, 414.8 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -3.1)

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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.:G2R5930120W	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC.	SUR.:21cm*16cm	Shielding Angle:

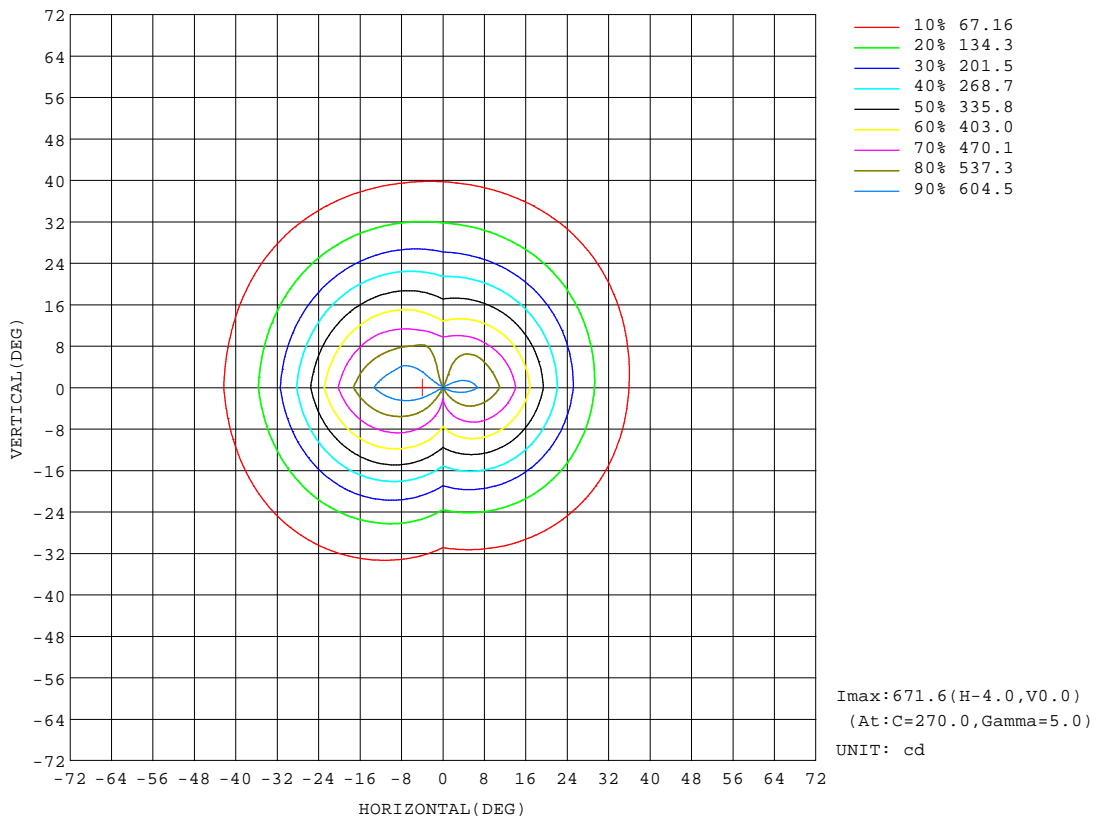
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	76	69	65	75	69	65	74	69	65	62
0.80	83	77	73	82	77	73	81	76	73	69
1.00	88	82	78	87	81	78	85	81	77	73
1.25	92	86	83	91	86	82	89	85	82	77
1.50	94	89	86	93	89	86	91	87	85	80
2.00	97	93	90	96	92	89	93	90	88	83
2.50	99	95	92	98	94	91	95	92	90	84
3.00	101	97	94	99	96	93	96	93	91	85
4.00	103	100	98	101	98	96	97	95	94	87
5.00	104	102	100	102	100	98	98	97	95	88
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

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 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:	WEIGHT:
SPEC.:G2R5930120W	DIM.:	SERIAL No.:
MFR.: RAB LIGHTING INC.	SUR.:21cm*16cm	Shielding Angle:



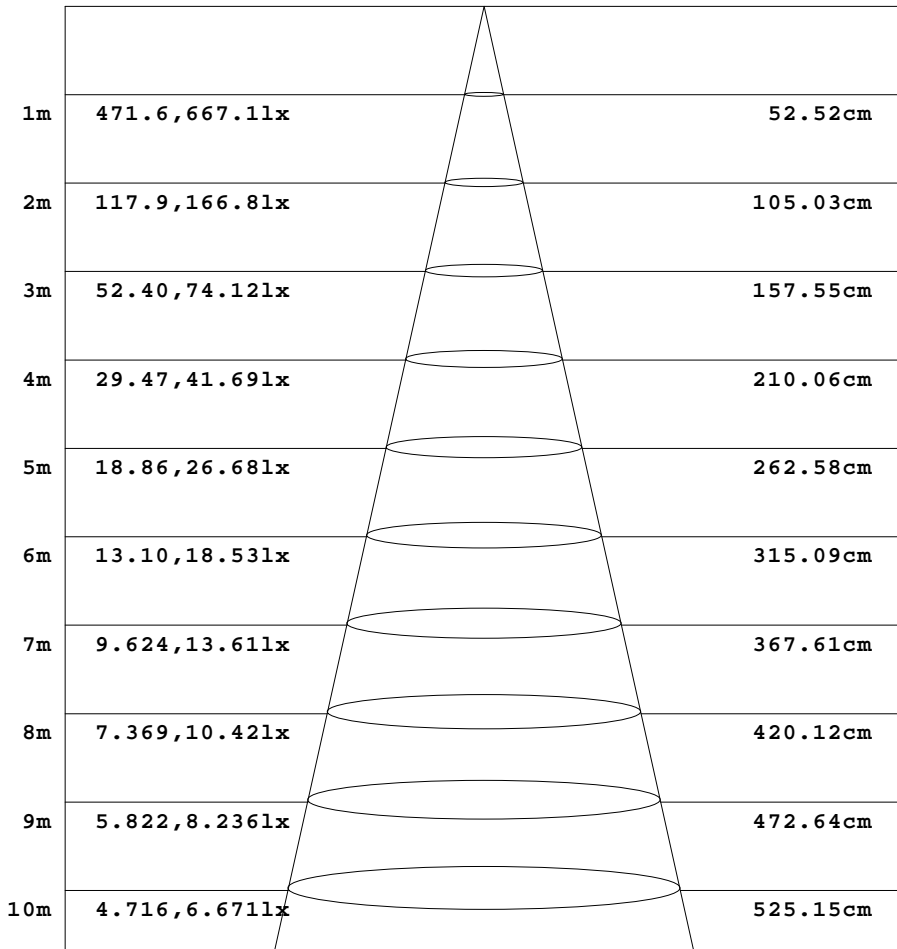
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Page Range: 0 - 90DEG
Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:3.200m [K=1.0000]
Remarks:

AAI Figure

NAME:	TYPE:	WEIGHT:
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Flux out:106.4 lm



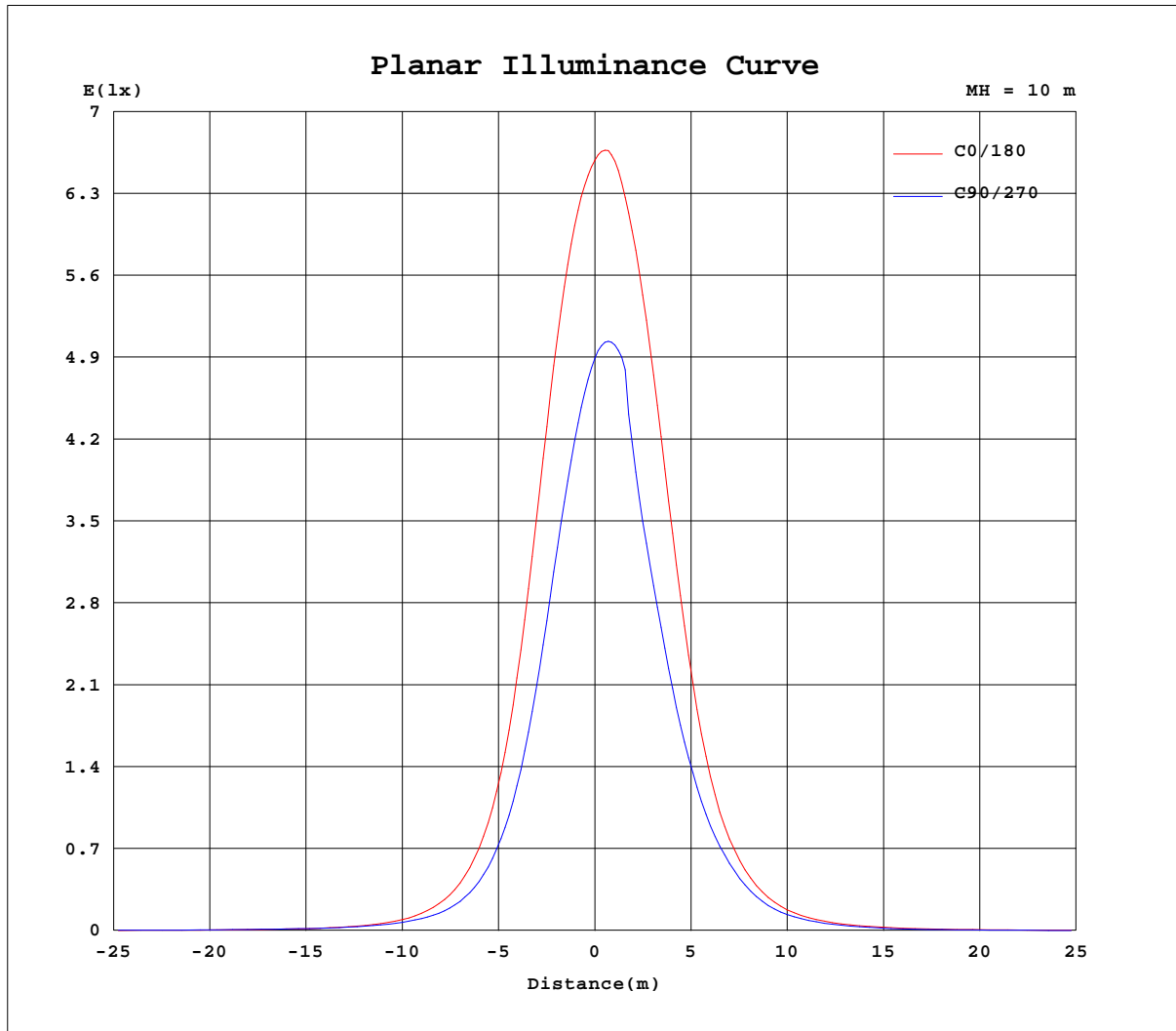
Height Eavg, Emax Angle:29.42deg Diameter

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.:G2R5930120W	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	574	574	574	574																										
5	543	515	585	597																										
10	483	427	560	542																										
15	390	318	505	431																										
20	279	217	414	341																										
25	178	139	305	254																										
30	108	86.3	200	180																										
35	64.7	53.5	124	123																										
40	38.5	34.4	75.0	76.3																										
45	23.2	23.5	44.0	45.6																										
50	14.7	16.8	26.3	28.2																										
55	9.79	12.9	16.3	16.9																										
60	6.90	10.24	10.5	9.81																										
65	4.82	8.09	7.14	6.04																										
70	3.05	6.49	4.95	3.91																										
75	1.85	5.00	3.31	2.49																										
80	0.12	3.47	2.15	1.22																										
85	0.02	1.64	0.08	0.04																										
90	0.00	0.00	0.13	0.00																										

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