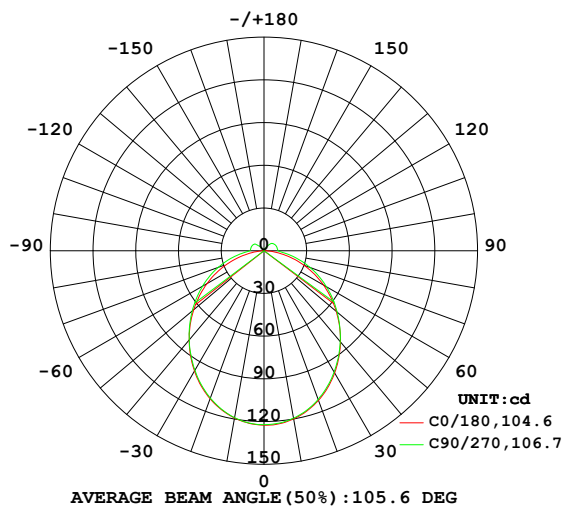


## LUMINAIRE PHOTOMETRIC TEST REPORT

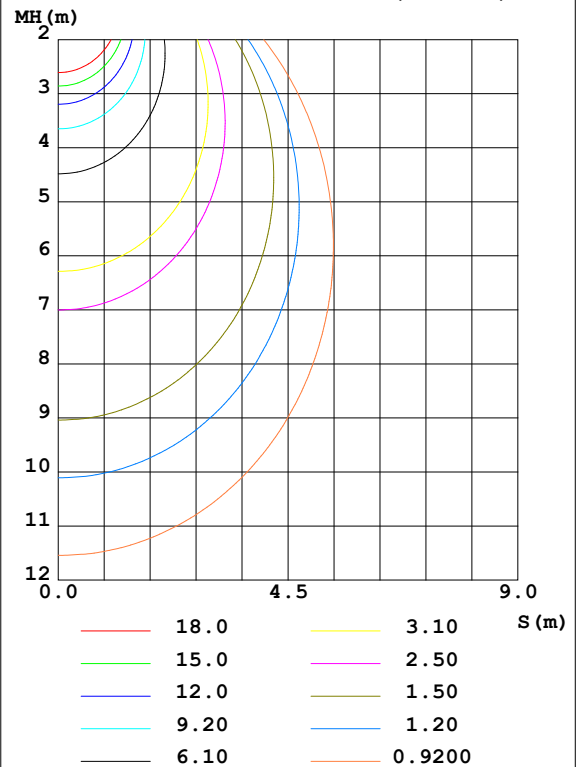
Test:U:24.001V I:0.1713A P:4.1114W PF:1.0000 Freq:0Hz Lamp Flux:355.101x1 lm		
NAME: RIBDC-12-40K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.3	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 86.38 lm/W			
MODEL		I <sub>max</sub> (cd)	122.5	S/MH (C0/180)	1.19
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)	1.19
RATED VOLTAGE (V)		TOTAL FLUX (lm)	355.12	η UP,DN (C0-180)	3.4,47.3
NOMINAL FLUX (lm)	355.101	CIE CLASS	DIRECT	η UP,DN (C180-360)	3.1,46.3
LAMPS INSIDE	1	η up (%)	6.4	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)		η down (%)	93.6	CIBSE SHR MAX	1.35

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: JZ  
Test Date: 2023-08-08

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.444  
Humidity: 65.0%  
Test Distance: 8.700m [K=1.0000]  
Remarks:

## ZONAL FLUX DIAGRAM

### ZONAL FLUX DIAGRAM:

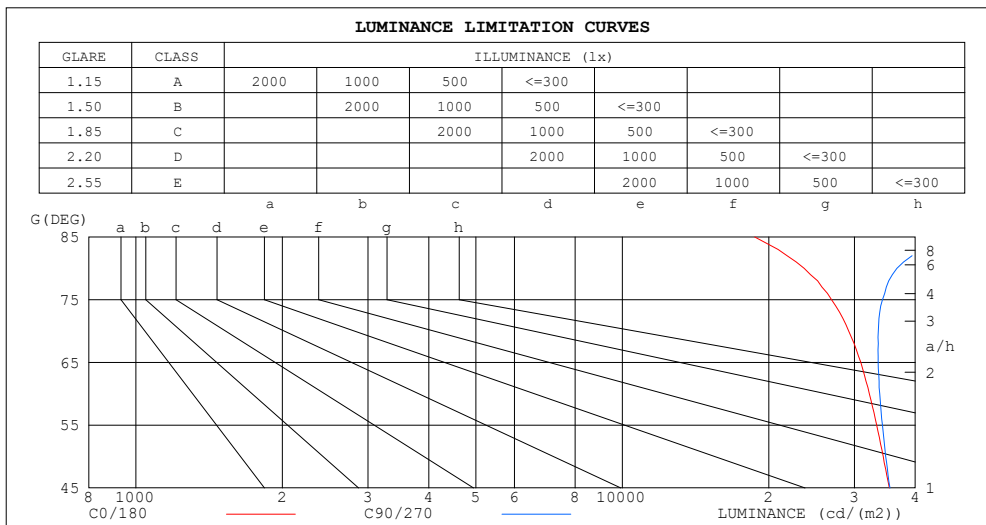
$\gamma$	C0	C90	C180	C270					$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	119.9	119.4	119.2	119.0					0- 10	11.54	11.54	3.25,3.25
20	111.8	111.1	110.6	110.2					10- 20	32.64	44.18	12.4,12.4
30	99.21	98.47	97.60	97.03					20- 30	48.33	92.51	26,26.1
40	83.59	83.32	81.76	81.76					30- 40	56.65	149.2	42,42
50	66.32	67.10	64.43	65.75					40- 50	57.36	206.5	58.2,58.2
60	48.29	50.72	46.31	49.92					50- 60	51.31	257.8	72.6,72.6
70	29.96	34.47	27.84	34.36					60- 70	39.81	297.6	83.8,83.8
80	12.32	19.10	10.23	19.59					70- 80	24.61	322.3	90.7,90.8
90	0.5104	9.877	0.2212	9.955					80- 90	10.00	332.3	93.6,93.6
100	0.1356	9.520	0.1718	9.483					90-100	5.368	337.6	95.1,95.1
110	0.1708	9.311	0.2217	9.275					100-110	5.076	342.7	96.5,96.5
120	0.1927	8.806	0.3078	8.708					110-120	4.606	347.3	97.8,97.8
130	0.2585	8.004	0.3572	6.299					120-130	3.817	351.1	98.9,98.9
140	0.3434	5.613	0.4238	3.008					130-140	2.425	353.6	99.6,99.6
150	0.3939	2.412	0.4805	0.6413					140-150	1.020	354.6	99.8,99.9
160	0.4539	0.6992	0.5358	0.5348					150-160	0.3375	354.9	99.9,99.9
170	0.5261	0.6054	0.5717	0.5701					160-170	0.1592	355.1	100,100
180	0.5789	0.5912	0.5789	0.5912					170-180	0.0544	355.1	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JZ  
Test Date:2023-08-08

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.444  
Humidity:65.0%  
Test Distance:8.700m [K=1.0000]  
Remarks:

## LUMINANCE LIMITATION CURVES

Test:U:24.001V I:0.1713A P:4.1114W PF:1.0000 Freq:0Hz Lamp Flux:355.10lx1 lm		
NAME: RIBDC-12-40K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.3	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	18714	49565
80	23652	36671
75	26914	34248
70	29199	33596
65	30927	33572
60	32190	33810
55	33337	34263
50	34392	34794
45	35385	35491

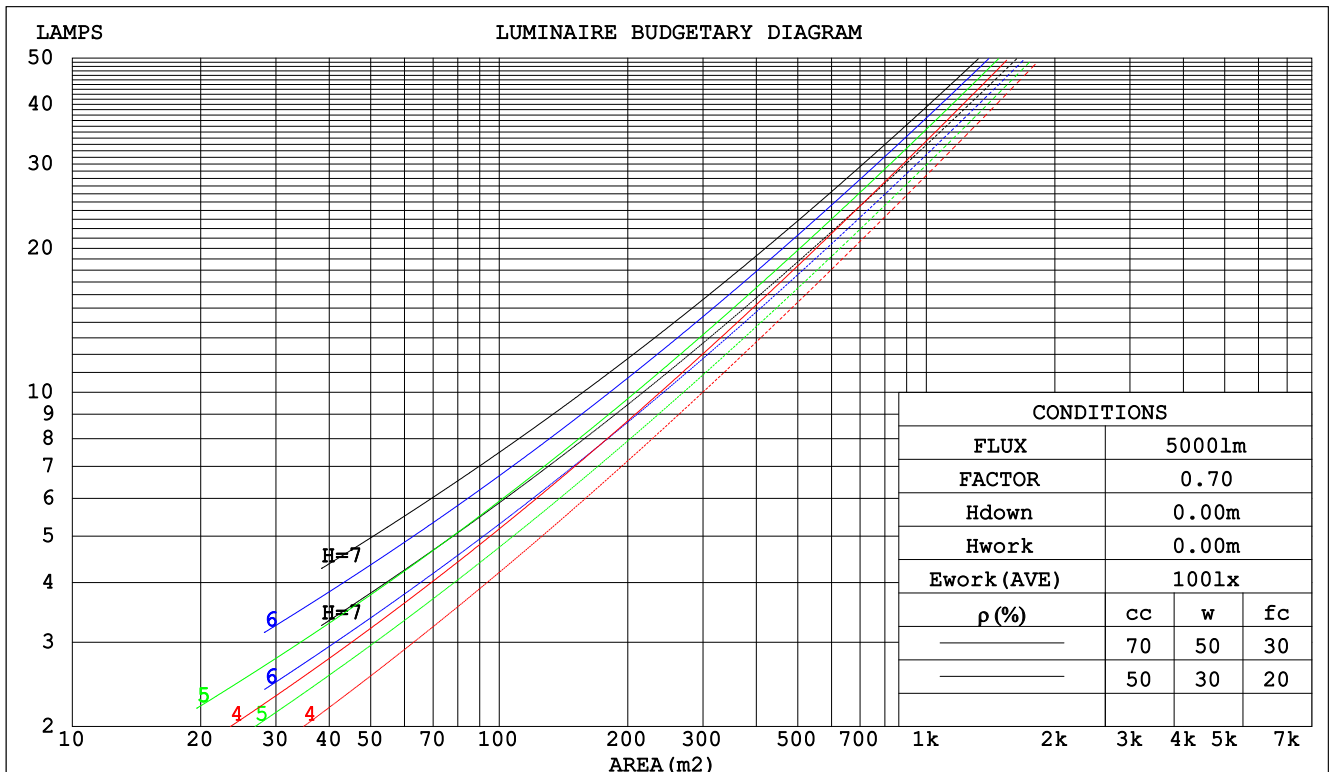
C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JZ  
Test Date:2023-08-08

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.444  
Humidity:65.0%  
Test Distance:8.700m [K=1.0000]  
Remarks:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:24.001V I:0.1713A P:4.1114W PF:1.0000 Freq:0Hz Lamp Flux:355.10lx1 lm		
NAME: RIBDC-12-40K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.3	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															



C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JZ  
Test Date:2023-08-08

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.444  
Humidity:65.0%  
Test Distance:8.700m [K=1.0000]  
Remarks:

### WEC AND CCEC

Test:U:24.001V I:0.1713A P:4.1114W PF:1.0000 Freq:0Hz		
Lamp Flux:355.101x1 lm		
NAME: RIBDC-12-40K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.3	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.317	.180	.057	.308	.176	.056	.291	.167	.053	.276	.159	.051	.261	.151	.049	
2.0	.293	.161	.049	.285	.157	.048	.270	.150	.047	.256	.144	.045	.243	.138	.043	
3.0	.269	.143	.043	.262	.140	.042	.248	.135	.041	.236	.129	.040	.224	.124	.038	
4.0	.247	.129	.038	.241	.126	.037	.229	.121	.036	.218	.117	.035	.207	.113	.034	
5.0	.228	.116	.034	.222	.114	.033	.212	.110	.032	.201	.106	.032	.192	.103	.031	
6.0	.211	.106	.030	.206	.104	.030	.196	.101	.029	.187	.097	.029	.179	.094	.028	
7.0	.197	.097	.028	.192	.096	.027	.183	.093	.027	.175	.090	.026	.167	.087	.025	
8.0	.183	.090	.025	.179	.088	.025	.171	.086	.024	.164	.083	.024	.157	.080	.023	
9.0	.172	.083	.023	.168	.082	.023	.161	.079	.023	.154	.077	.022	.147	.075	.022	
10.0	.162	.077	.022	.158	.076	.021	.151	.074	.021	.145	.072	.020	.139	.070	.020	

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients (CCEC)									
0.0	.240	.240	.240	.205	.205	.205	.140	.140	.140	.080	.080	.080	.026	.026	.026	
1.0	.230	.206	.183	.197	.176	.158	.135	.121	.109	.078	.070	.063	.025	.023	.021	
2.0	.222	.182	.148	.190	.156	.128	.130	.108	.089	.075	.063	.052	.024	.020	.017	
3.0	.214	.164	.124	.184	.142	.108	.126	.099	.076	.073	.058	.045	.023	.019	.015	
4.0	.207	.151	.109	.177	.131	.095	.122	.091	.067	.071	.053	.039	.023	.017	.013	
5.0	.199	.141	.098	.171	.122	.085	.118	.085	.060	.068	.050	.036	.022	.016	.012	
6.0	.192	.133	.090	.165	.115	.078	.114	.080	.056	.066	.047	.033	.021	.015	.011	
7.0	.185	.126	.084	.159	.109	.073	.110	.077	.052	.064	.045	.031	.021	.015	.010	
8.0	.179	.120	.080	.154	.104	.070	.107	.073	.049	.062	.043	.029	.020	.014	.010	
9.0	.173	.115	.076	.149	.100	.067	.103	.070	.047	.060	.042	.028	.019	.014	.009	
10.0	.167	.111	.074	.144	.096	.064	.100	.068	.046	.058	.040	.027	.019	.013	.009	

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JZ  
Test Date:2023-08-08

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.444  
Humidity:65.0%  
Test Distance:8.700m [K=1.0000]  
Remarks:

### UGR(Unified Glare Rating) Table

Test:U:24.001V I:0.1713A P:4.1114W PF:1.0000 Freq:0Hz										
Lamp Flux:355.10lx1 lm										
NAME: RIBDC-12-40K-AM					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.: RAYHIL					SUR.: 0.01*0.3			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	28.2	29.6	28.6	29.9	30.3	28.3	29.8	28.7	30.1	30.4
3H	29.7	31.0	30.1	31.4	31.7	30.0	31.3	30.4	31.7	32.1
4H	30.3	31.5	30.7	31.9	32.3	30.8	32.1	31.2	32.4	32.8
6H	30.7	31.9	31.1	32.3	32.7	31.5	32.7	31.9	33.1	33.5
8H	30.8	31.9	31.2	32.3	32.8	31.8	33.0	32.3	33.4	33.8
12H	30.9	32.0	31.3	32.4	32.8	32.2	33.3	32.6	33.7	34.1
4H 2H	28.8	30.1	29.2	30.4	30.8	28.9	30.2	29.3	30.5	30.9
3H	30.5	31.6	31.0	32.0	32.4	30.8	31.9	31.3	32.3	32.7
4H	31.2	32.2	31.7	32.7	33.1	31.7	32.7	32.2	33.1	33.6
6H	31.8	32.7	32.3	33.1	33.6	32.6	33.4	33.1	33.9	34.4
8H	32.0	32.8	32.5	33.3	33.8	33.0	33.8	33.5	34.3	34.8
12H	32.1	32.8	32.6	33.3	33.9	33.4	34.1	33.9	34.6	35.2
8H 4H	31.6	32.4	32.1	32.9	33.4	32.0	32.8	32.5	33.3	33.8
6H	32.3	33.0	32.8	33.5	34.0	33.0	33.7	33.6	34.2	34.8
8H	32.6	33.2	33.1	33.7	34.3	33.5	34.1	34.1	34.7	35.3
12H	32.8	33.3	33.3	33.8	34.4	34.1	34.6	34.7	35.2	35.8
12H 4H	31.6	32.3	32.1	32.8	33.4	32.0	32.7	32.5	33.2	33.8
6H	32.4	33.0	32.9	33.5	34.1	33.1	33.7	33.6	34.2	34.8
8H	32.7	33.2	33.3	33.8	34.4	33.7	34.2	34.2	34.7	35.4
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.1 / - 0.2					+ 0.1 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.1 / - 0.3					+ 0.1 / - 0.3				

CIE Pub.117, 355.1 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -3.6)  
Area: 0.003 m2

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JZ  
Test Date:2023-08-08

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.444  
Humidity:65.0%  
Test Distance:8.700m [K=1.0000]  
Remarks:

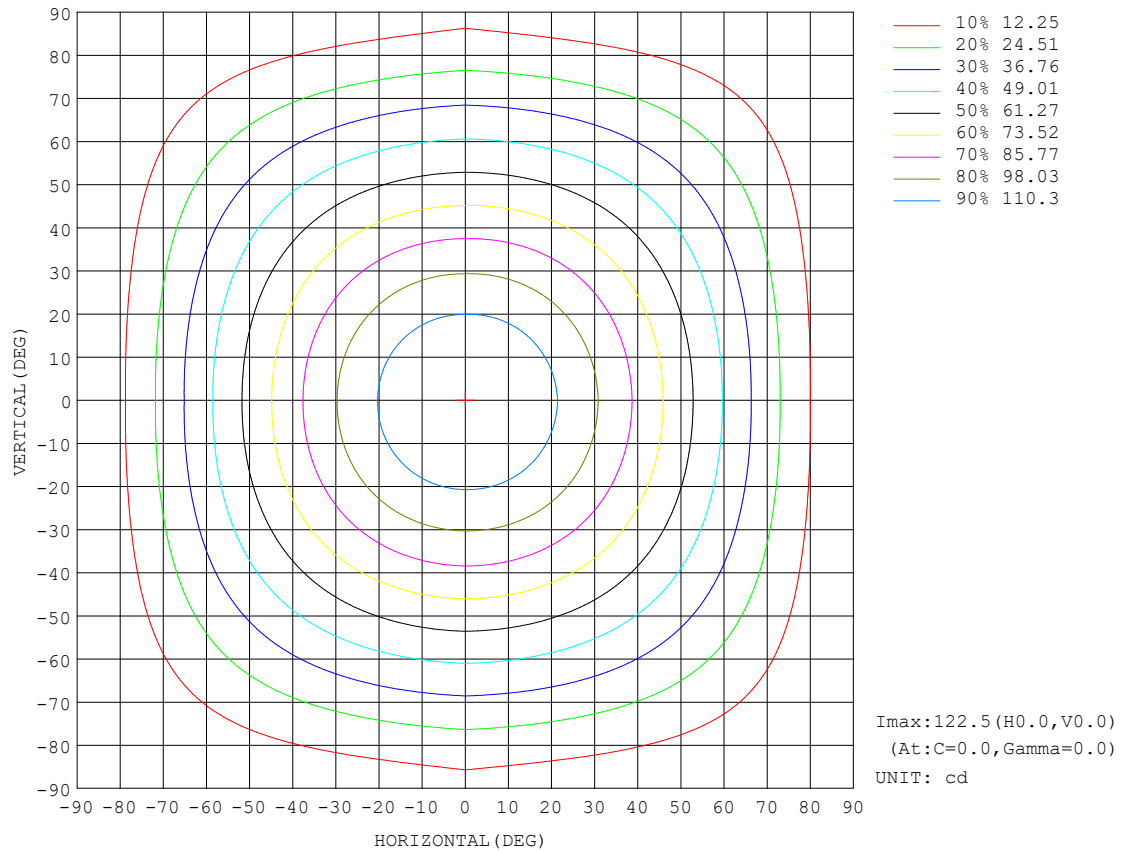
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γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.444
Humidity:65.0%
Test Distance:8.700m [K=1.0000]
Remarks:

```

### ISOCANDELA DIAGRAM

Test:U:24.001V I:0.1713A P:4.1114W PF:1.0000 Freq:0Hz Lamp Flux:355.10lx1 lm		
NAME: RIBDC-12-40K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.3	Shielding Angle:



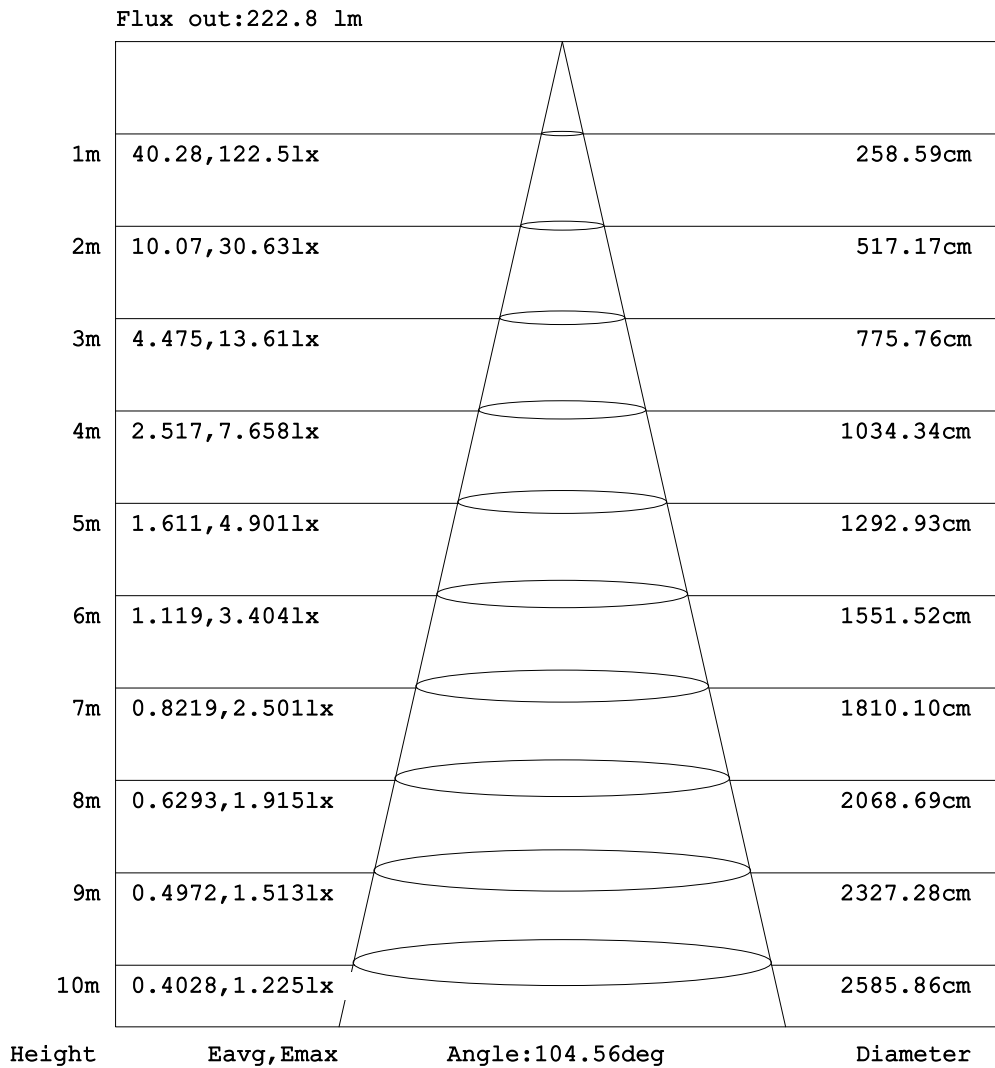
C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JZ  
Test Date:2023-08-08

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.444  
Humidity:65.0%  
Test Distance:8.700m [K=1.0000]  
Remarks:



AAI Figure

Test:U:24.001V I:0.1713A P:4.1114W PF:1.0000 Freq:0Hz Lamp Flux:355.10lx1 lm		
NAME: RIBDC-12-40K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.3	Shielding Angle:



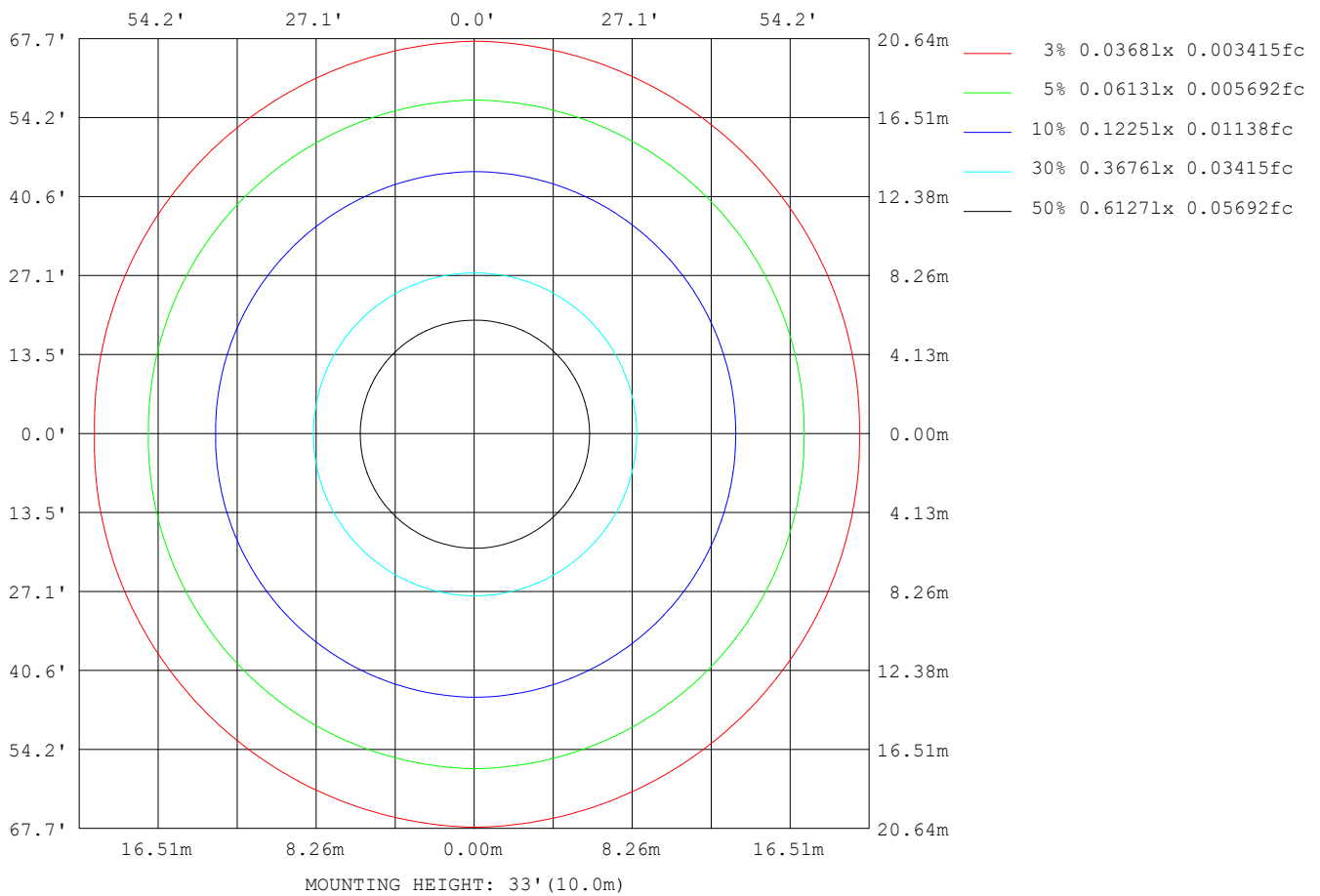
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JZ  
Test Date:2023-08-08

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.444  
Humidity:65.0%  
Test Distance:8.700m [K=1.0000]  
Remarks:

ISOLUX DIAGRAM

Test:U:24.001V I:0.1713A P:4.1114W PF:1.0000 Freq:0Hz Lamp Flux:355.10lx1 lm		
NAME: RIBDC-12-40K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.3	Shielding Angle:



C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JZ  
Test Date:2023-08-08

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.444  
Humidity:65.0%  
Test Distance:8.700m [K=1.0000]  
Remarks:

### LED Avg.L Report

Test:U:24.001V I:0.1713A P:4.1114W PF:1.0000 Freq:0Hz Lamp Flux:355.101x1 lm		
NAME: RIBDC-12-40K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.3	Shielding Angle:

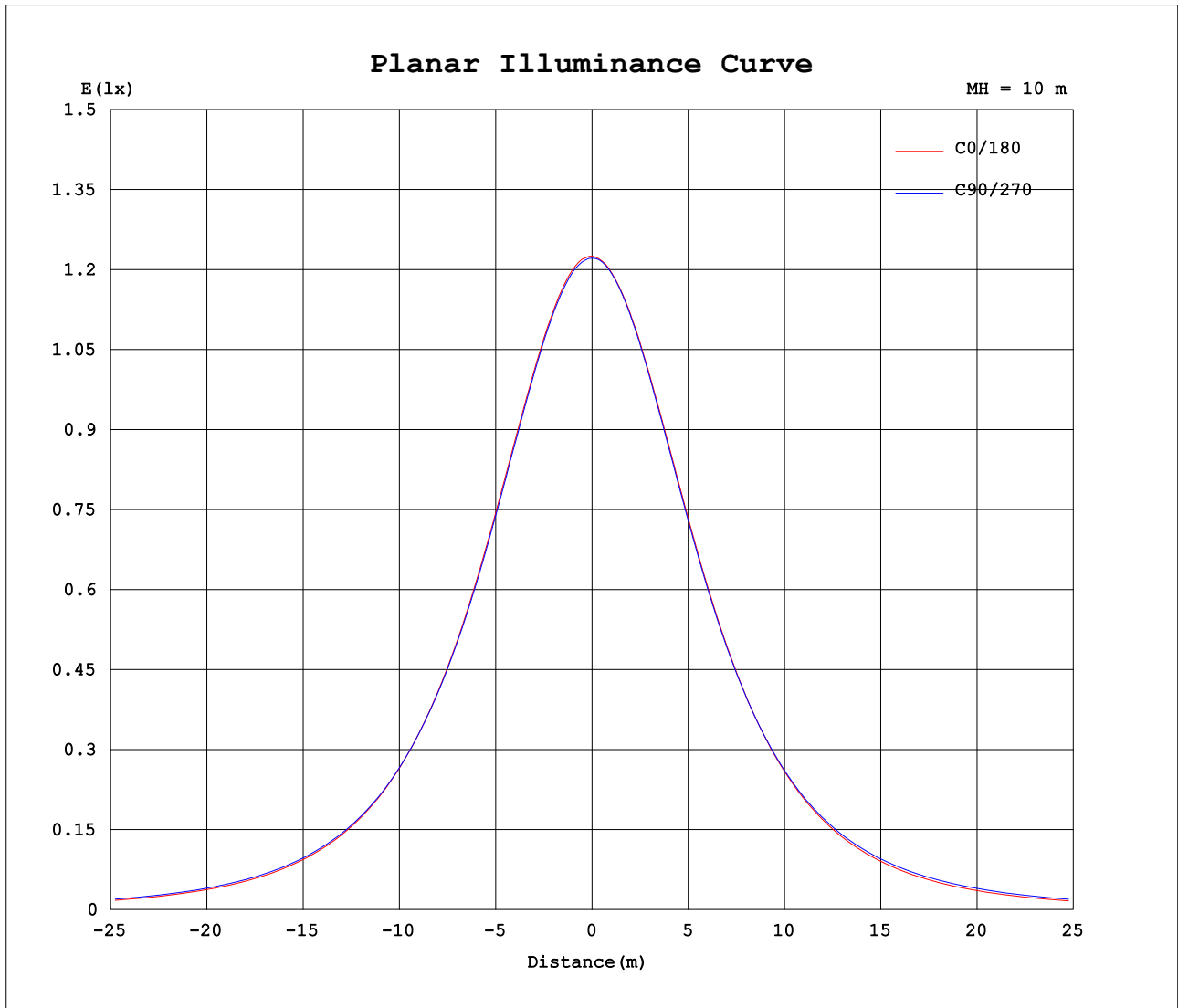
AvgL	cd/m2
L_0~180 (65) av	30071
L_0~180 (75) av	25525
L_0~180 (85) av	15691
L_90~270 (65) av	33369
L_90~270 (75) av	34343
L_90~270 (85) av	50591
L_45 (65) av	32079
L_45 (75) av	30950
L_45 (85) av	37315

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JZ  
Test Date:2023-08-08

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.444  
Humidity:65.0%  
Test Distance:8.700m [K=1.0000]  
Remarks:

### Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: JZ  
 Test Date: 2023-08-08

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.00.444  
 Humidity: 65.0%  
 Test Distance: 8.700m [K=1.0000]  
 Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:24.001V I:0.1713A P:4.1114W PF:1.0000 Freq:0Hz Lamp Flux:355.10lx1 lm		
NAME: RIBDC-12-40K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.3	Shielding Angle:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	90	180	270														
0	123	122	123	122														
5	122	122	122	121														
10	120	119	119	119														
15	117	116	116	115														
20	112	111	111	110														
25	106	105	105	104														
30	99.2	98.5	97.6	97.0														
35	91.7	91.1	90.0	89.5														
40	83.6	83.3	81.8	81.8														
45	75.1	75.3	73.3	73.8														
50	66.3	67.1	64.4	65.7														
55	57.4	59.0	55.4	57.8														
60	48.3	50.7	46.3	49.9														
65	39.2	42.6	37.0	42.0														
70	30.0	34.5	27.8	34.4														
75	20.9	26.6	18.7	26.7														
80	12.3	19.1	10.2	19.6														
85	4.89	13.0	3.31	13.5														
90	0.51	9.88	0.22	9.95														
95	0.14	9.66	0.18	9.58														
100	0.14	9.52	0.17	9.48														
105	0.16	9.45	0.18	9.42														
110	0.17	9.31	0.22	9.27														
115	0.18	9.09	0.26	9.05														
120	0.19	8.81	0.31	8.71														
125	0.23	8.44	0.33	8.26														
130	0.26	8.00	0.36	6.30														
135	0.32	7.30	0.39	4.70														
140	0.34	5.61	0.42	3.01														
145	0.36	3.89	0.46	1.57														
150	0.39	2.41	0.48	0.64														
155	0.42	1.34	0.51	0.51														
160	0.45	0.70	0.54	0.53														
165	0.51	0.62	0.57	0.58														
170	0.53	0.61	0.57	0.57														
175	0.54	0.60	0.58	0.57														
180	0.58	0.59	0.58	0.59														

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JZ  
Test Date:2023-08-08

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.00.444  
Humidity:65.0%  
Test Distance:8.700m [K=1.0000]  
Remarks: