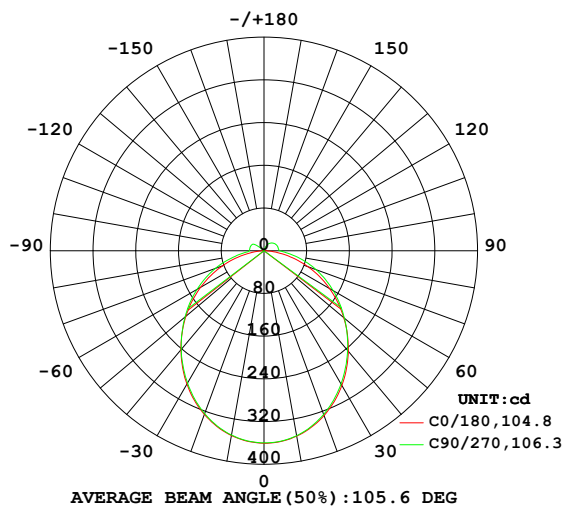


## LUMINAIRE PHOTOMETRIC TEST REPORT

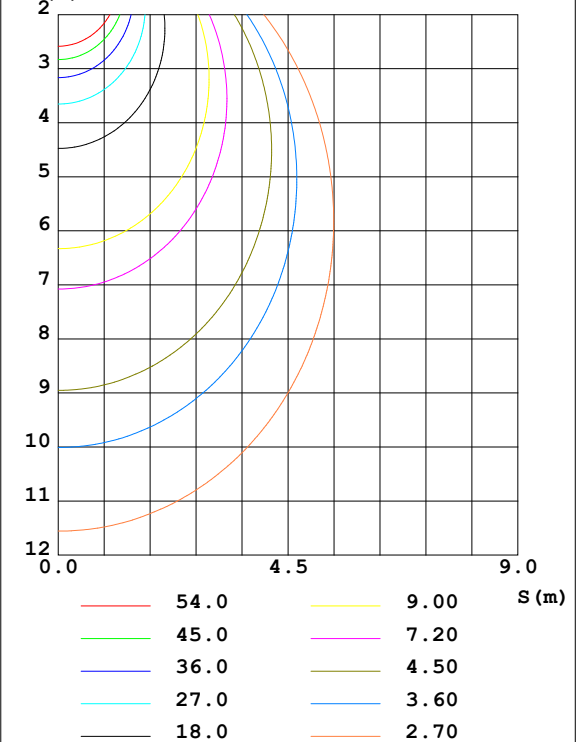
Test:U:24.001V I:0.5172A P:12.413W PF:1.0000 Freq:0Hz Lamp Flux:1039.69x1 lm		
NAME: RIBDC-35-35K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.9	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 83.76 lm/W			
MODEL		I <sub>max</sub> (cd)	360.5	S/MH (C0/180)	1.20
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)	1.19
RATED VOLTAGE (V)		TOTAL FLUX (lm)	1039.7	η UP, DN (C0-180)	3.5, 47.6
NOMINAL FLUX (lm)	1039.69	CIE CLASS	DIRECT	η UP, DN (C180-360)	2.6, 46.3
LAMPS INSIDE	1	η up (%)	6.1	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)		η down (%)	93.9	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:

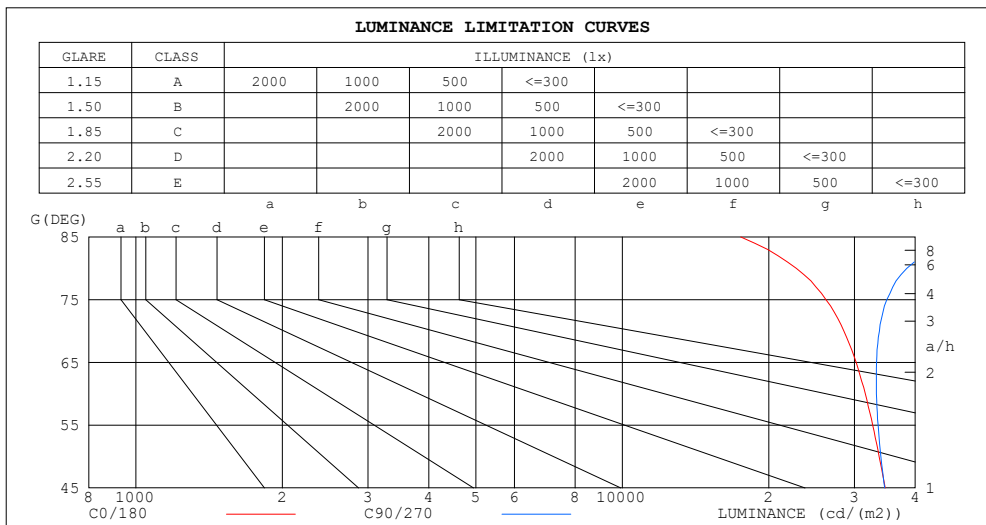
$\gamma$	C0	C90	C180	C270					$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	352.4	351.7	351.4	350.4					0- 10	33.97	33.97	3.27,3.27
20	328.6	326.2	326.2	324.7					10- 20	96.05	130.0	12.5,12.5
30	291.6	288.4	288.7	286.4					20- 30	142.2	272.3	26.2,26.2
40	245.8	243.6	242.1	241.2					30- 40	166.7	439.0	42.2,42.2
50	195.1	196.7	190.9	193.1					40- 50	168.9	607.9	58.5,58.5
60	142.1	149.8	137.4	144.8					50- 60	151.0	758.9	73,73
70	87.86	103.9	82.57	97.09					60- 70	116.9	875.8	84.2,84.2
80	35.62	60.07	30.28	51.50					70- 80	71.77	947.6	91.1,91.1
90	0.9267	29.59	0.3325	27.64					80- 90	28.68	976.3	93.9,93.9
100	0.3449	27.26	0.4435	27.06					90-100	15.25	991.5	95.4,95.4
110	0.5147	26.73	0.6159	26.49					100-110	14.51	1006	96.8,96.8
120	0.7390	25.18	0.8498	24.80					110-120	13.19	1019	98,98
130	0.9359	22.49	1.059	7.406					120-130	9.801	1029	99,99
140	1.157	18.85	1.257	1.188					130-140	4.993	1034	99.5,99.5
150	1.342	14.16	1.429	1.296					140-150	3.224	1037	99.8,99.8
160	1.531	5.882	1.577	1.564					150-160	1.687	1039	99.9,99.9
170	1.592	1.932	1.687	1.634					160-170	0.6143	1040	100,100
180	1.737	1.724	1.737	1.712					170-180	0.1604	1040	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:0.5172A P:12.413W PF:1.0000 Freq:0Hz Lamp Flux:1039.69x1 lm		
NAME: RIBDC-35-35K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.9	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	17520	53046
80	22793	38436
75	26216	34973
70	28542	33768
65	30266	33320
60	31580	33286
55	32703	33566
50	33721	34000
45	34697	34615

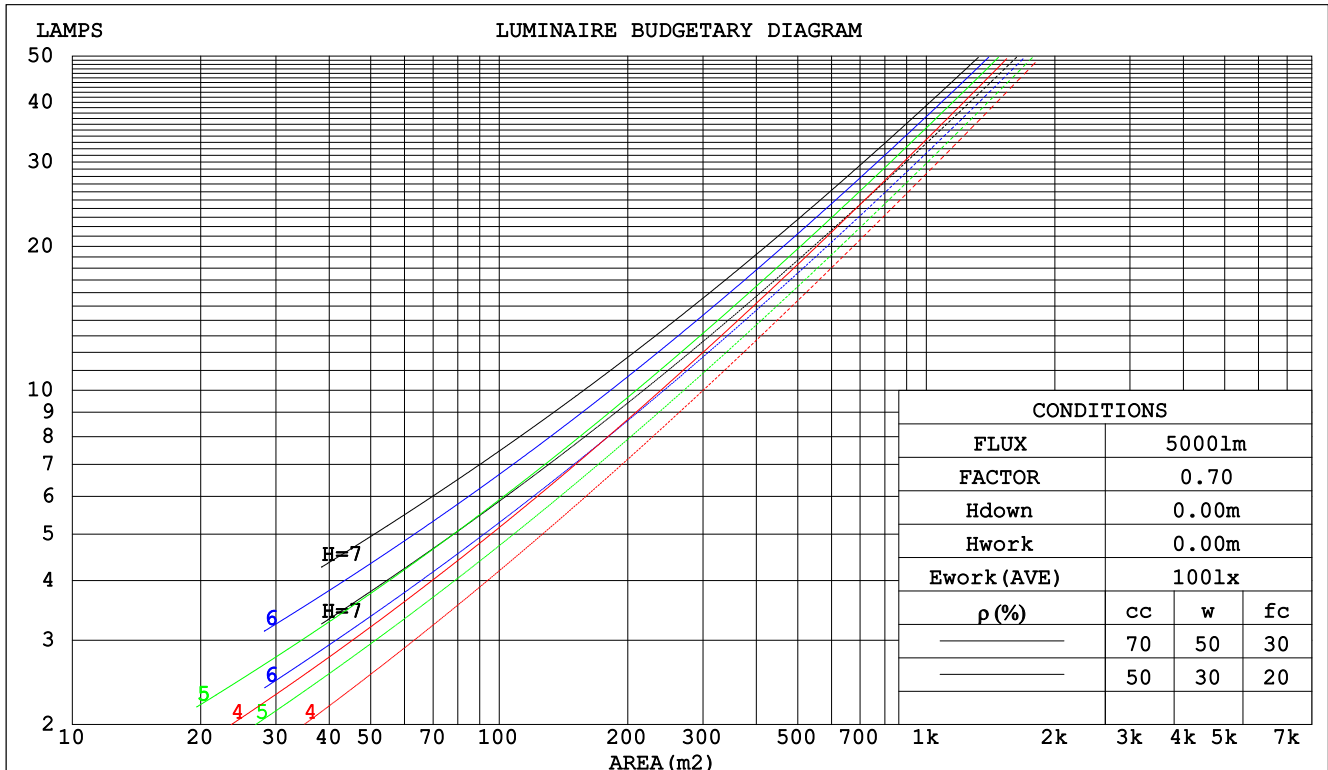
C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JZ  
Test Date:2023-08-08

$\gamma$  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:0.5172A P:12.413W PF:1.0000 Freq:0Hz Lamp Flux:1039.69x1 lm		
NAME: RIBDC-35-35K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.9	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						Coefficients of Utilization(CU)									
0.0	1.18	1.18	1.18	1.14	1.14	1.14	1.08	1.08	1.08	1.02	1.02	1.02	.96	.96	.96	.94
1.0	1.02	.98	.94	.99	.95	.92	.94	.91	.88	.89	.86	.84	.84	.82	.80	.78
2.0	.89	.82	.76	.86	.80	.75	.82	.77	.72	.78	.73	.70	.74	.70	.67	.65
3.0	.78	.70	.63	.76	.68	.62	.72	.66	.60	.69	.63	.59	.65	.61	.57	.54
4.0	.69	.60	.54	.67	.59	.53	.64	.57	.52	.61	.55	.50	.58	.53	.49	.47
5.0	.62	.53	.46	.60	.52	.46	.58	.50	.45	.55	.49	.44	.52	.47	.43	.40
6.0	.56	.47	.40	.54	.46	.40	.52	.45	.39	.50	.43	.38	.48	.42	.38	.35
7.0	.51	.42	.36	.49	.41	.35	.47	.40	.35	.45	.39	.34	.44	.38	.33	.31
8.0	.46	.38	.32	.45	.37	.32	.43	.36	.31	.42	.35	.30	.40	.34	.30	.28
9.0	.42	.34	.29	.41	.34	.28	.40	.33	.28	.38	.32	.28	.37	.31	.27	.25
10.0	.39	.31	.26	.38	.31	.26	.37	.30	.25	.36	.29	.25	.34	.29	.25	.23



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:0.5172A P:12.413W PF:1.0000 Freq:0Hz		
Lamp Flux:1039.69x1 lm		
NAME: RIBDC-35-35K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.9	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	.316	.180	.057	.307	.175	.056	.291	.167	.053	.275	.159	.051	.261	.151	.049		
2.0	.293	.160	.049	.285	.157	.048	.270	.150	.047	.256	.144	.045	.243	.138	.043		
3.0	.269	.143	.043	.262	.140	.042	.249	.135	.041	.236	.129	.040	.225	.124	.039		
4.0	.247	.129	.038	.241	.126	.037	.229	.121	.036	.218	.117	.035	.208	.113	.034		
5.0	.228	.116	.034	.222	.114	.033	.212	.110	.032	.202	.106	.032	.192	.103	.031		
6.0	.211	.106	.030	.206	.104	.030	.197	.101	.029	.188	.097	.029	.179	.094	.028		
7.0	.197	.097	.028	.192	.096	.027	.183	.093	.027	.175	.090	.026	.167	.087	.026		
8.0	.183	.090	.025	.179	.088	.025	.171	.086	.024	.164	.083	.024	.157	.081	.023		
9.0	.172	.083	.023	.168	.082	.023	.161	.080	.023	.154	.077	.022	.148	.075	.022		
10.0	.162	.077	.022	.158	.076	.021	.152	.074	.021	.145	.072	.021	.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	.237	.237	.237	.203	.203	.203	.138	.138	.138	.079	.079	.079	.025	.025	.025	
1.0	.228	.203	.181	.195	.174	.156	.133	.120	.108	.077	.069	.063	.025	.022	.020	
2.0	.220	.179	.145	.188	.154	.125	.129	.107	.087	.074	.062	.051	.024	.020	.017	
3.0	.212	.162	.122	.182	.140	.106	.125	.097	.074	.072	.057	.044	.023	.018	.014	
4.0	.204	.149	.106	.175	.128	.092	.120	.089	.065	.070	.052	.038	.022	.017	.013	
5.0	.197	.138	.095	.169	.120	.083	.116	.084	.059	.067	.049	.035	.022	.016	.011	
6.0	.189	.130	.087	.163	.113	.076	.112	.079	.054	.065	.046	.032	.021	.015	.011	
7.0	.183	.123	.082	.157	.107	.071	.109	.075	.050	.063	.044	.030	.020	.014	.010	
8.0	.176	.117	.077	.152	.102	.067	.105	.072	.048	.061	.042	.028	.020	.014	.009	
9.0	.170	.113	.074	.147	.098	.064	.102	.069	.046	.059	.041	.027	.019	.013	.009	
10.0	.165	.108	.071	.142	.094	.062	.098	.066	.044	.057	.039	.026	.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:0.5172A P:12.413W PF:1.0000 Freq:0Hz Lamp Flux:1039.69x1 lm										
NAME: RIBDC-35-35K-AM					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.: RAYHIL					SUR.: 0.01*0.9			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	24.4	25.9	24.8	26.2	26.5	24.6	26.0	24.9	26.3	26.6
3H	25.9	27.2	26.3	27.6	27.9	26.3	27.6	26.7	28.0	28.3
4H	26.5	27.8	26.9	28.1	28.5	27.1	28.4	27.5	28.7	29.1
6H	26.9	28.1	27.3	28.5	28.9	27.9	29.1	28.3	29.4	29.9
8H	27.0	28.2	27.5	28.6	29.0	28.3	29.4	28.7	29.8	30.2
12H	27.1	28.2	27.5	28.6	29.0	28.6	29.7	29.1	30.1	30.6
4H 2H	25.0	26.3	25.4	26.7	27.0	25.2	26.4	25.6	26.8	27.2
3H	26.7	27.8	27.2	28.2	28.7	27.1	28.2	27.5	28.6	29.0
4H	27.5	28.5	27.9	28.9	29.4	28.1	29.0	28.5	29.5	29.9
6H	28.0	28.9	28.5	29.4	29.9	29.0	29.8	29.5	30.3	30.8
8H	28.2	29.0	28.7	29.5	30.0	29.4	30.2	29.9	30.7	31.2
12H	28.3	29.0	28.8	29.5	30.1	29.9	30.6	30.4	31.1	31.7
8H 4H	27.8	28.6	28.3	29.1	29.6	28.3	29.2	28.8	29.6	30.1
6H	28.5	29.2	29.1	29.7	30.3	29.4	30.1	30.0	30.6	31.2
8H	28.8	29.4	29.4	30.0	30.5	30.0	30.6	30.5	31.1	31.7
12H	29.0	29.5	29.6	30.1	30.7	30.6	31.2	31.2	31.7	32.3
12H 4H	27.9	28.6	28.4	29.1	29.6	28.3	29.1	28.9	29.6	30.1
6H	28.7	29.3	29.2	29.8	30.4	29.5	30.1	30.0	30.6	31.2
8H	29.0	29.5	29.6	30.1	30.7	30.1	30.6	30.7	31.2	31.8
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, 1040 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 0.1)  
Area: 0.009 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:

### UTILIZATION FACTORS TABLE

Test:U:24.001V I:0.5172A P:12.413W PF:1.0000 Freq:0Hz Lamp Flux:1039.69x1 lm		
NAME: RIBDC-35-35K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.9	Shielding Angle:

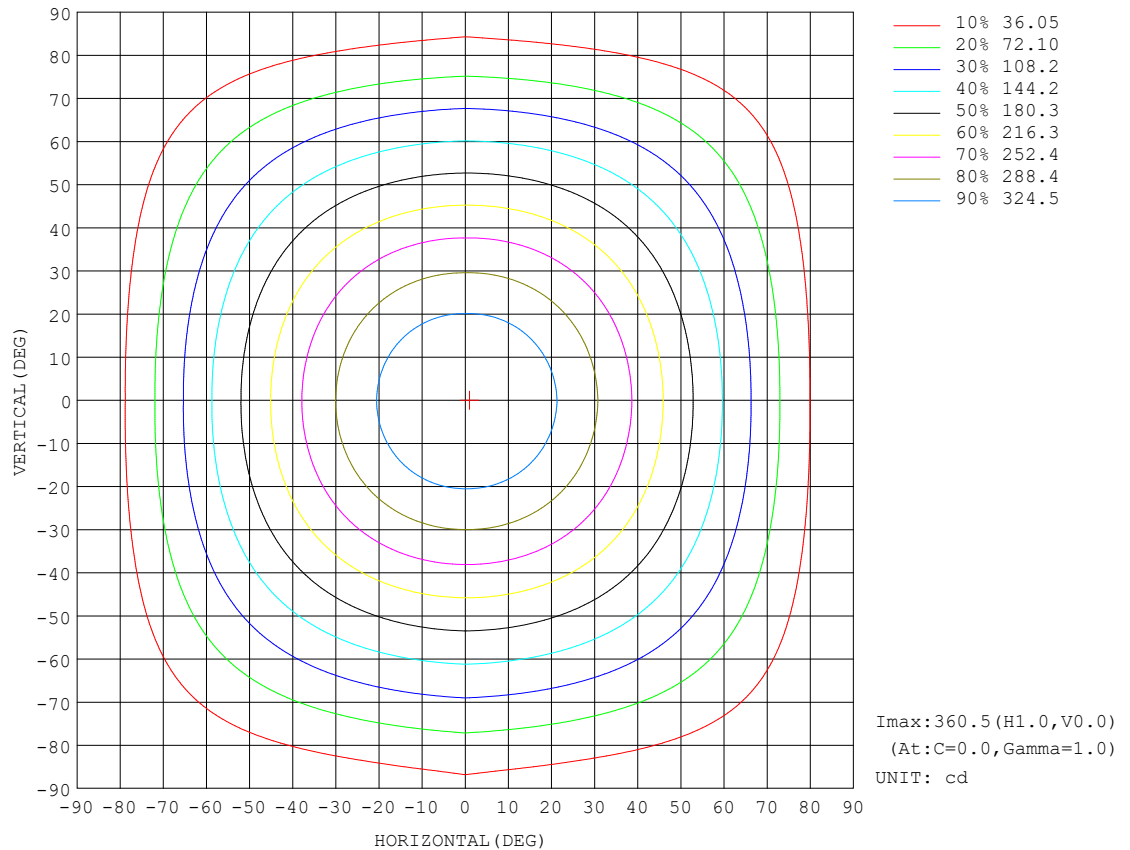
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT)    k(RI) x RCR = 5									
k = 0.60	56	44	37	55	44	37	54	43	37	31
0.80	66	54	47	65	53	46	62	52	46	39
1.00	74	63	55	72	62	55	70	63	54	47
1.25	81	70	63	79	69	62	76	67	61	53
1.50	86	76	68	84	74	68	80	72	66	58
2.00	93	84	77	90	82	76	86	79	74	65
2.50	97	88	82	94	87	81	89	83	78	69
3.00	100	93	87	97	91	85	92	87	83	73
4.00	104	98	93	101	96	91	96	92	88	77
5.00	107	101	97	104	99	95	98	94	91	80
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004										
Suspended										
SHRNM = 1.25										

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:

# ISOCANDELA DIAGRAM

Test:U:24.001V I:0.5172A P:12.413W PF:1.0000 Freq:0Hz Lamp Flux:1039.69x1 lm		
NAME: RIBDC-35-35K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.9	Shielding Angle:



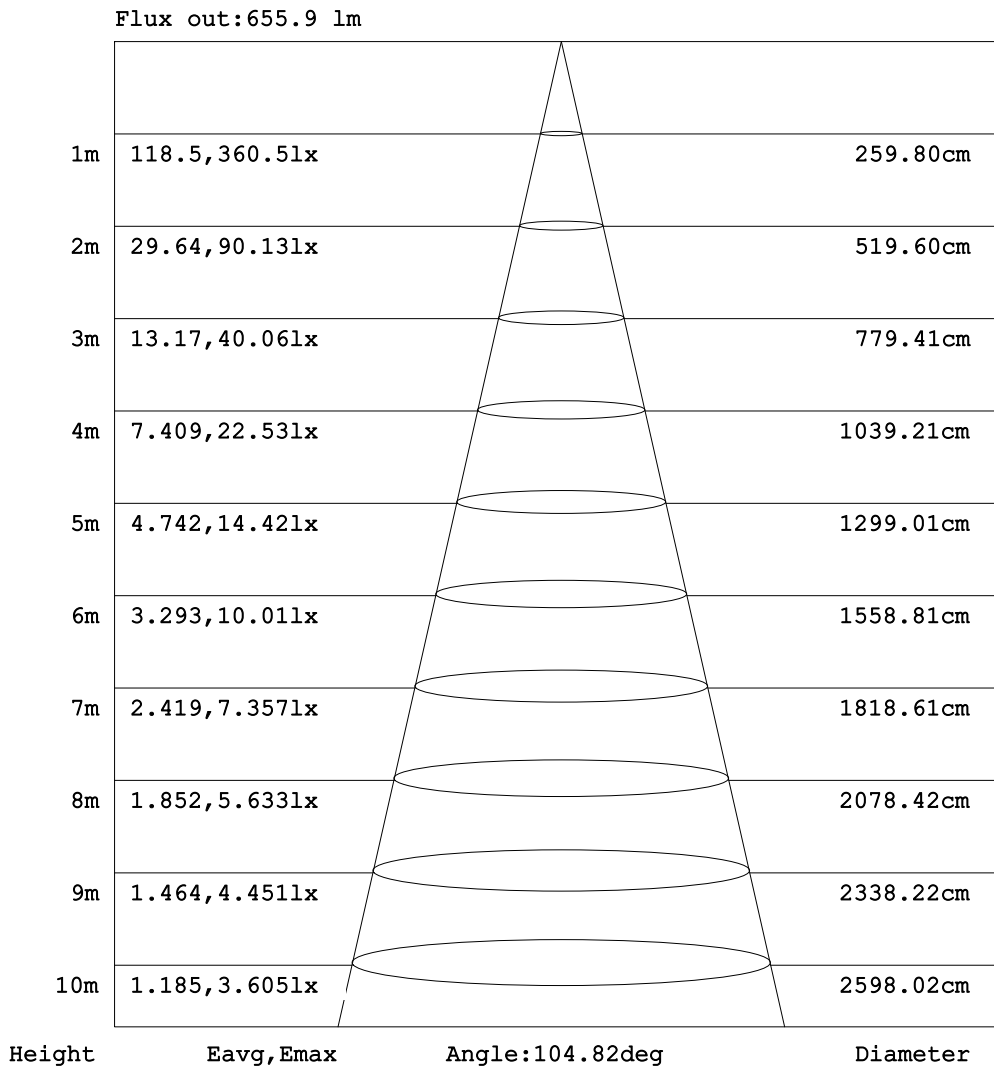
C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:JZ  
Test Date:2023-08-08

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:0.5172A P:12.413W PF:1.0000 Freq:0Hz Lamp Flux:1039.69x1 lm		
NAME: RIBDC-35-35K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.9	Shielding Angle:



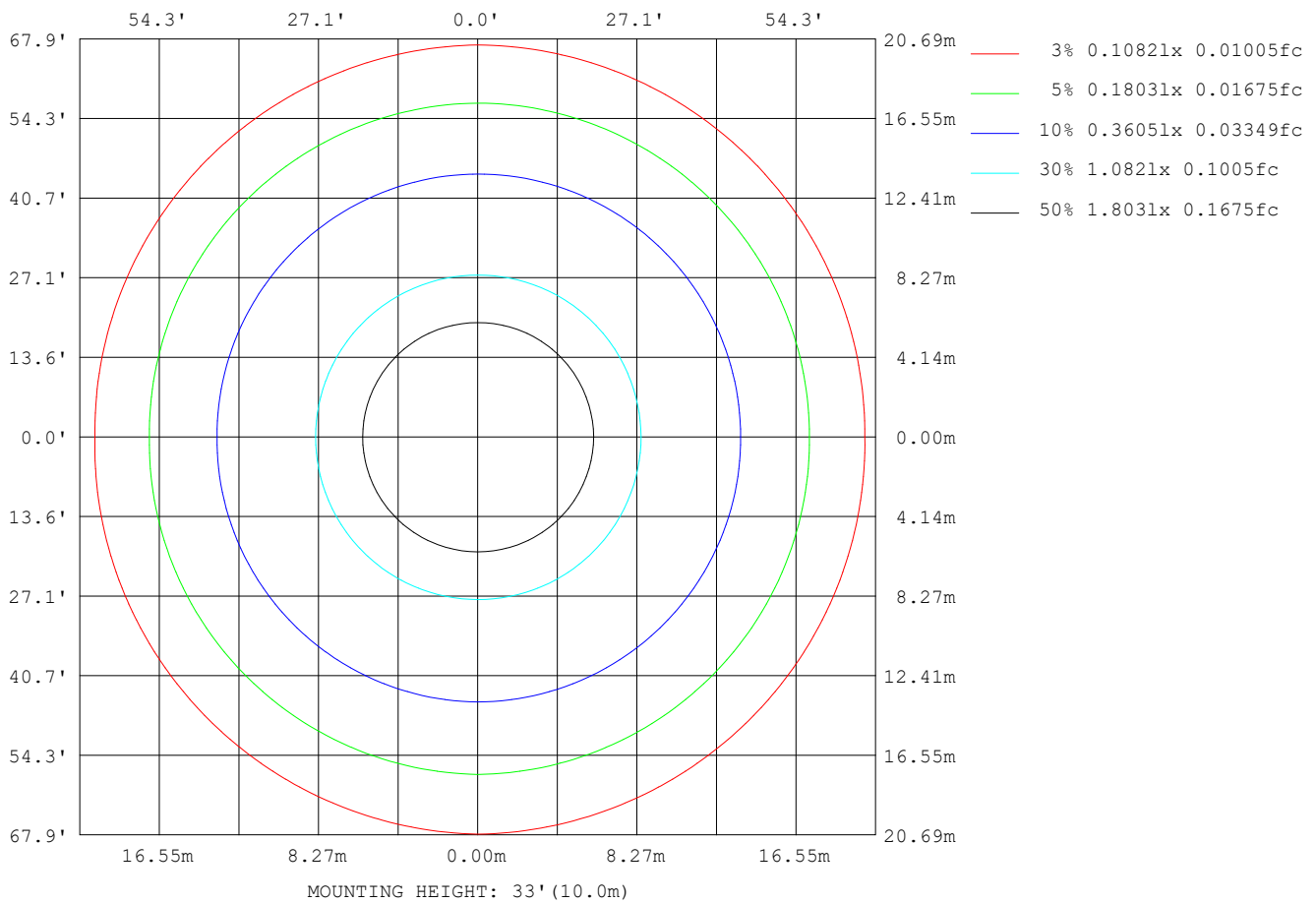
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:0.5172A P:12.413W PF:1.0000 Freq:0Hz Lamp Flux:1039.69x1 lm		
NAME: RIBDC-35-35K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.9	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:0.5172A P:12.413W PF:1.0000 Freq:0Hz Lamp Flux:1039.69x1 lm		
NAME: RIBDC-35-35K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.9	Shielding Angle:

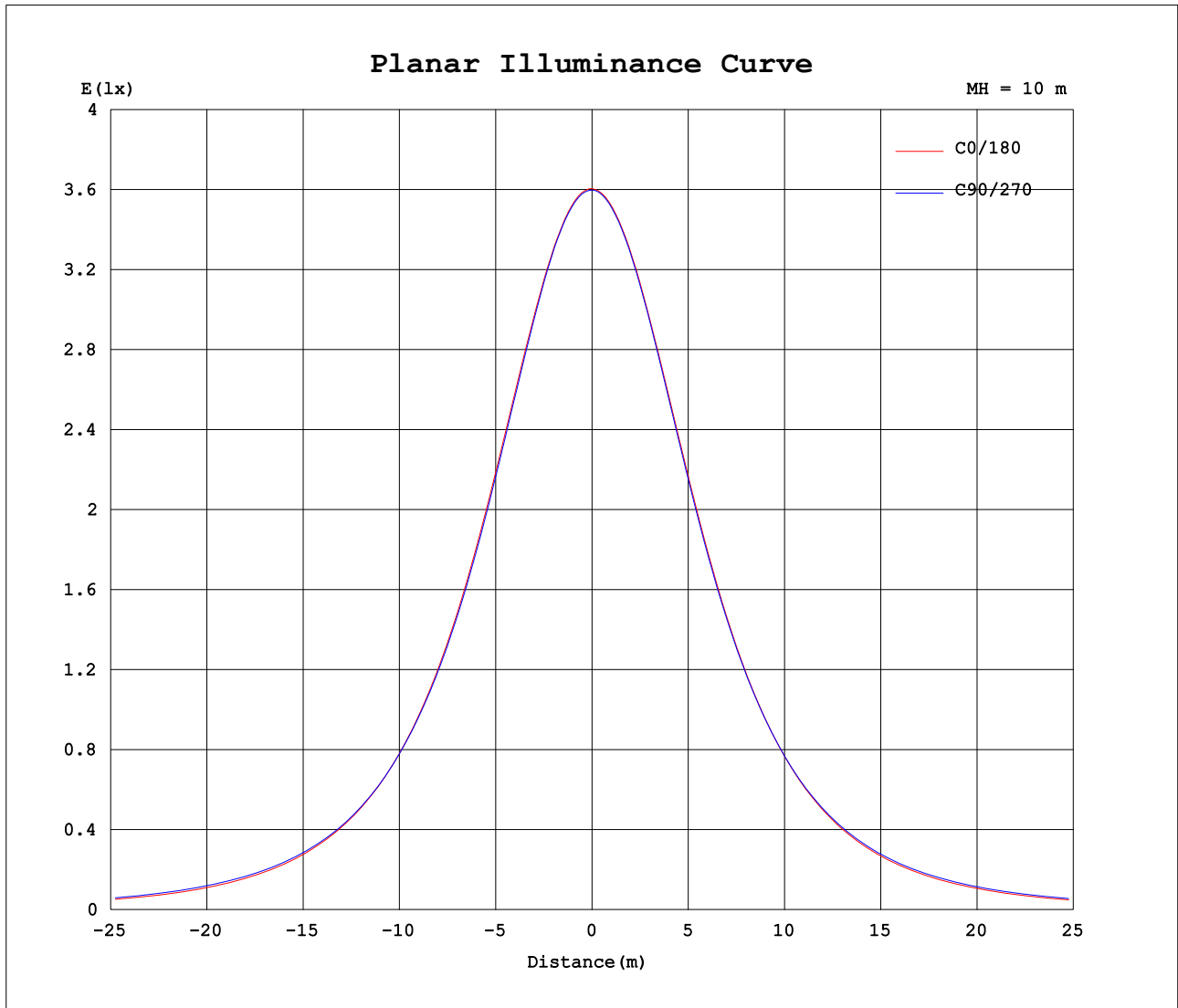
AvgL	cd/m2
L_0~180 (65) av	29592
L_0~180 (75) av	25035
L_0~180 (85) av	14835
L_90~270 (65) av	32529
L_90~270 (75) av	33110
L_90~270 (85) av	48014
L_45 (65) av	31386
L_45 (75) av	30008
L_45 (85) av	35404

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:0.5172A P:12.413W PF:1.0000 Freq:0Hz Lamp Flux:1039.69x1 lm		
NAME: RIBDC-35-35K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.9	Shielding Angle:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	90	180	270														
0	361	360	361	360														
5	359	358	358	357														
10	352	352	351	350														
15	342	341	341	339														
20	329	326	326	325														
25	311	308	309	307														
30	292	288	289	286														
35	269	266	266	264														
40	246	244	242	241														
45	221	220	217	217														
50	195	197	191	193														
55	169	173	164	169														
60	142	150	137	145														
65	115	127	110	121														
70	87.9	104	82.6	97.1														
75	61.1	81.5	55.6	72.8														
80	35.6	60.1	30.3	51.5														
85	13.7	41.6	9.53	33.7														
90	0.93	29.6	0.33	27.6														
95	0.36	27.8	0.38	27.2														
100	0.34	27.3	0.44	27.1														
105	0.41	27.1	0.53	26.9														
110	0.51	26.7	0.62	26.5														
115	0.62	26.0	0.73	25.8														
120	0.74	25.2	0.85	24.8														
125	0.84	23.9	0.95	19.5														
130	0.94	22.5	1.06	7.41														
135	1.03	20.8	1.16	1.72														
140	1.16	18.9	1.26	1.19														
145	1.26	16.7	1.33	1.20														
150	1.34	14.2	1.43	1.30														
155	1.40	9.91	1.52	1.37														
160	1.53	5.88	1.58	1.56														
165	1.56	3.67	1.63	1.61														
170	1.59	1.93	1.69	1.63														
175	1.65	1.72	1.72	1.65														
180	1.74	1.72	1.74	1.71														

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: