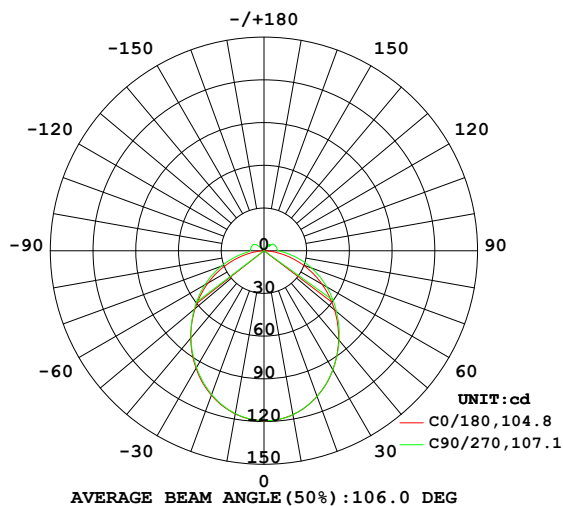


LUMINAIRE PHOTOMETRIC TEST REPORT

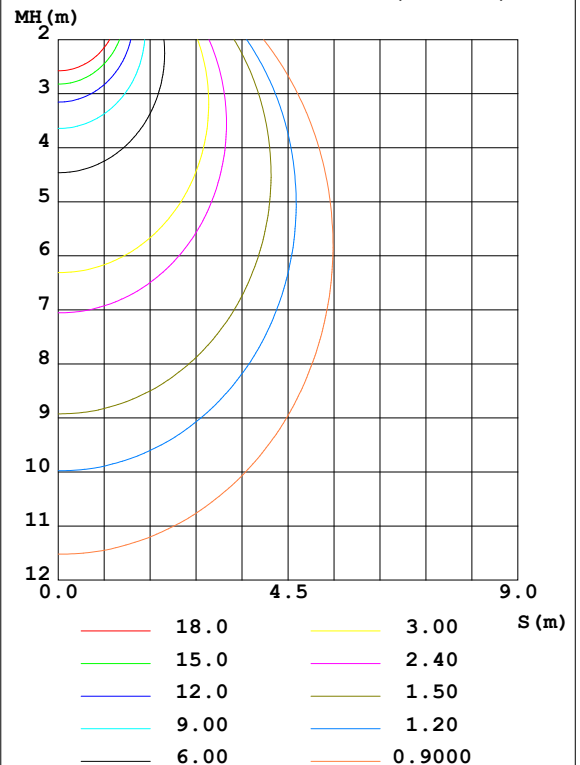
Test:U:24.001V I:0.1702A P:4.0850W PF:1.0000 Freq:0Hz Lamp Flux:346.947x1 lm		
NAME: RIBDC-12-35K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.3	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 84.95 lm/W			
MODEL		I _{max} (cd)	119.4	S/MH (C0/180)	1.20
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)	1.19
RATED VOLTAGE (V)		TOTAL FLUX (lm)	347.03	η UP,DN (C0-180)	3.3,47.8
NOMINAL FLUX (lm)	346.947	CIE CLASS	DIRECT	η UP,DN (C180-360)	3.0,45.9
LAMPS INSIDE	1	η up (%)	6.3	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)		η down (%)	93.8	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:

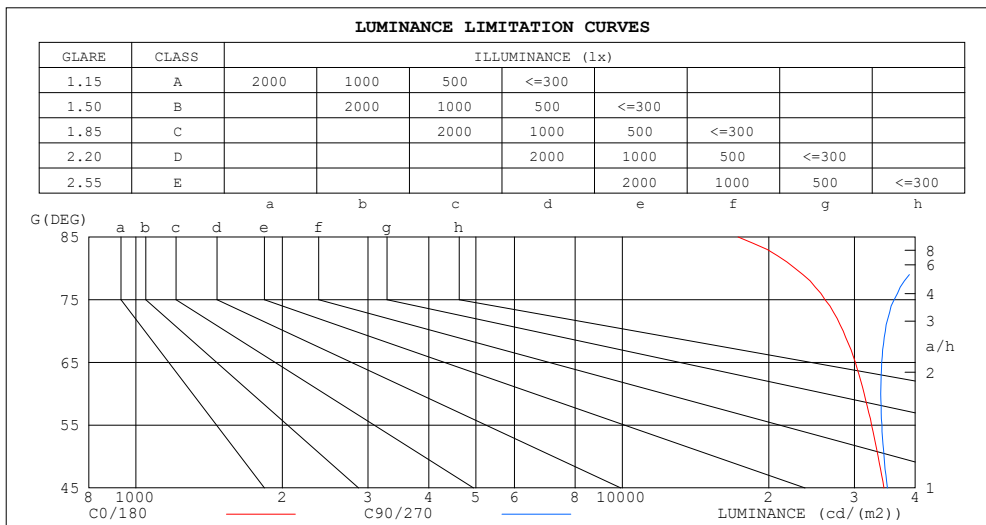
γ	C0	C90	C180	C270					γ	Φ zone	Φ total	%lum, lamp
10	116.9	116.9	116.4	116.1					0- 10	11.26	11.26	3.24,3.25
20	108.9	108.9	108.0	107.5					10- 20	31.86	43.12	12.4,12.4
30	96.69	96.65	95.42	94.82					20- 30	47.21	90.33	26,26
40	81.48	82.07	80.06	79.87					30- 40	55.41	145.7	42,42
50	64.72	66.55	63.15	63.99					40- 50	56.20	201.9	58.2,58.2
60	47.13	50.96	45.50	47.99					50- 60	50.33	252.3	72.7,72.7
70	29.20	35.64	27.36	32.05					60- 70	39.07	291.3	84,84
80	11.80	20.88	10.01	17.24					70- 80	24.12	315.5	90.9,90.9
90	0.3252	10.18	0.4970	9.718					80- 90	9.816	325.3	93.7,93.8
100	0.1299	9.200	0.1935	9.503					90-100	5.316	330.6	95.3,95.3
110	0.1478	9.028	0.2050	9.299					100-110	4.990	335.6	96.7,96.7
120	0.1813	8.485	0.2794	8.733					110-120	4.525	340.1	98,98
130	0.2708	6.469	0.3449	5.367					120-130	3.659	343.8	99.1,99.1
140	0.3342	5.430	0.4223	0.5309					130-140	1.738	345.5	99.6,99.6
150	0.3695	3.544	0.4678	0.4294					140-150	0.9604	346.5	99.8,99.9
160	0.4359	0.5670	0.5421	0.4372					150-160	0.3670	346.8	99.9,100
170	0.5171	0.5665	0.5620	0.5246					160-170	0.1477	347.0	100,100
180	0.5542	0.5789	0.5665	0.5665					170-180	0.0529	347.0	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

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:

LUMINANCE LIMITATION CURVES

Test:U:24.001V I:0.1702A P:4.0850W PF:1.0000 Freq:0Hz Lamp Flux:346.947x1 lm		
NAME: RIBDC-12-35K-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	17301	55541
80	22659	40075
75	26105	36215
70	28454	34736
65	30149	34127
60	31418	33975
55	32550	34170
50	33561	34514
45	34496	35079

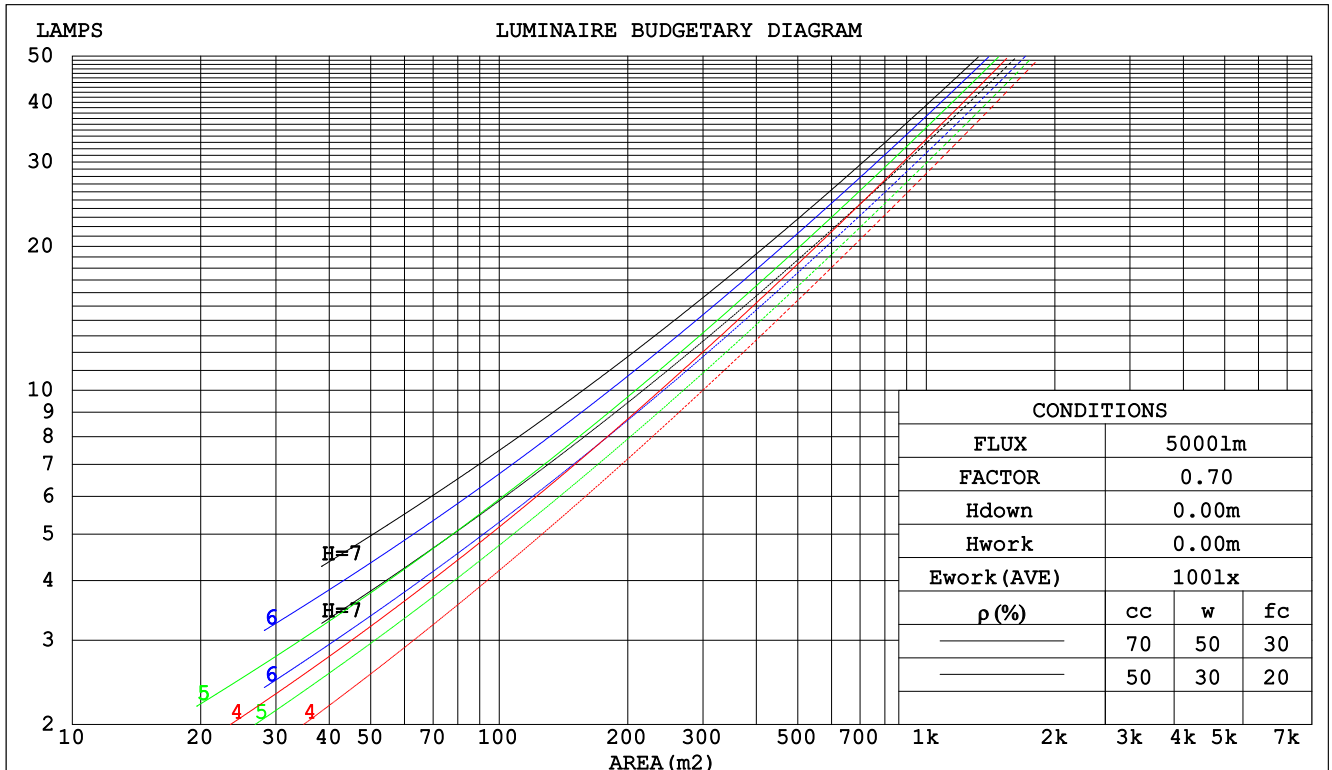
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JZ
Test Date:2023-08-08

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:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:24.001V I:0.1702A P:4.0850W PF:1.0000 Freq:0Hz Lamp Flux:346.947x1 lm		
NAME: RIBDC-12-35K-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						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	.91	.94	.90	.87	.89	.86	.84	.84	.82	.80	.78
2.0	.89	.82	.76	.86	.80	.75	.82	.77	.72	.78	.73	.69	.74	.70	.67	.64
3.0	.78	.70	.63	.76	.68	.62	.72	.66	.60	.68	.63	.58	.65	.61	.57	.54
4.0	.69	.60	.54	.67	.59	.53	.64	.57	.51	.61	.55	.50	.58	.53	.49	.46
5.0	.62	.53	.46	.60	.52	.46	.57	.50	.45	.55	.48	.43	.52	.47	.42	.40
6.0	.56	.47	.40	.54	.46	.40	.52	.45	.39	.50	.43	.38	.47	.42	.37	.35
7.0	.50	.42	.36	.49	.41	.35	.47	.40	.35	.45	.39	.34	.43	.38	.33	.31
8.0	.46	.38	.32	.45	.37	.31	.43	.36	.31	.41	.35	.30	.40	.34	.30	.28
9.0	.42	.34	.29	.41	.34	.28	.40	.33	.28	.38	.32	.27	.37	.31	.27	.25
10.0	.39	.31	.26	.38	.31	.26	.37	.30	.25	.35	.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:0.1702A P:4.0850W PF:1.0000 Freq:0Hz		
Lamp Flux:346.947x1 lm		
NAME: RIBDC-12-35K-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	.318	.181	.057	.309	.176	.056	.292	.167	.053	.276	.159	.051	.262	.152	.049		
2.0	.293	.161	.049	.285	.157	.048	.270	.150	.047	.257	.144	.045	.244	.138	.043		
3.0	.269	.143	.043	.262	.140	.042	.249	.135	.041	.237	.130	.040	.225	.125	.039		
4.0	.248	.129	.038	.241	.126	.037	.229	.122	.036	.218	.117	.035	.208	.113	.034		
5.0	.228	.116	.034	.223	.114	.033	.212	.110	.032	.202	.107	.032	.192	.103	.031		
6.0	.212	.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	.184	.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	.078	.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	.238	.238	.238	.204	.204	.204	.139	.139	.139	.080	.080	.080	.026	.026	.026	
1.0	.229	.204	.182	.196	.175	.157	.134	.121	.108	.077	.070	.063	.025	.022	.020	
2.0	.221	.180	.146	.189	.155	.126	.130	.107	.088	.075	.063	.052	.024	.020	.017	
3.0	.213	.163	.123	.183	.141	.107	.125	.098	.075	.072	.057	.044	.023	.019	.014	
4.0	.205	.150	.108	.176	.130	.093	.121	.090	.066	.070	.053	.039	.023	.017	.013	
5.0	.198	.140	.097	.170	.121	.084	.117	.084	.059	.068	.050	.035	.022	.016	.012	
6.0	.191	.131	.089	.164	.114	.077	.113	.080	.055	.066	.047	.032	.021	.015	.011	
7.0	.184	.125	.083	.158	.108	.072	.109	.076	.051	.064	.045	.030	.021	.015	.010	
8.0	.178	.119	.078	.153	.103	.068	.106	.072	.049	.062	.043	.029	.020	.014	.010	
9.0	.172	.114	.075	.148	.099	.065	.102	.070	.046	.060	.041	.028	.019	.013	.009	
10.0	.166	.110	.072	.143	.095	.063	.099	.067	.045	.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:0.1702A P:4.0850W PF:1.0000 Freq:0Hz Lamp Flux:346.947x1 lm										
NAME: RIBDC-12-35K-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	29.7	28.6	30.0	30.3	28.5	29.9	28.8	30.2	30.5
3H	29.7	31.0	30.1	31.4	31.7	30.2	31.6	30.6	31.9	32.3
4H	30.3	31.6	30.7	31.9	32.3	31.1	32.3	31.5	32.7	33.1
6H	30.7	31.9	31.1	32.3	32.7	31.9	33.0	32.3	33.4	33.8
8H	30.8	32.0	31.3	32.4	32.8	32.2	33.4	32.7	33.8	34.2
12H	30.9	32.0	31.3	32.4	32.8	32.6	33.7	33.1	34.1	34.6
4H 2H	28.9	30.1	29.3	30.5	30.9	29.1	30.3	29.5	30.7	31.1
3H	30.6	31.7	31.0	32.1	32.5	31.0	32.1	31.5	32.5	33.0
4H	31.3	32.3	31.8	32.7	33.2	32.0	33.0	32.5	33.4	33.9
6H	31.8	32.7	32.3	33.2	33.7	32.9	33.8	33.4	34.3	34.8
8H	32.0	32.8	32.5	33.3	33.8	33.4	34.2	33.9	34.7	35.2
12H	32.1	32.9	32.6	33.4	33.9	33.9	34.6	34.4	35.1	35.7
8H 4H	31.7	32.5	32.2	33.0	33.5	32.3	33.1	32.8	33.6	34.1
6H	32.4	33.1	32.9	33.6	34.1	33.4	34.1	33.9	34.6	35.2
8H	32.7	33.3	33.2	33.8	34.4	34.0	34.6	34.5	35.1	35.7
12H	32.9	33.4	33.4	33.9	34.5	34.6	35.2	35.2	35.7	36.3
12H 4H	31.7	32.5	32.2	33.0	33.5	32.3	33.0	32.8	33.5	34.1
6H	32.5	33.1	33.1	33.7	34.2	33.5	34.1	34.0	34.6	35.2
8H	32.8	33.4	33.4	33.9	34.5	34.1	34.6	34.7	35.2	35.8
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, 346.9 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -3.7)
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:

UTILIZATION FACTORS TABLE

Test:U:24.001V I:0.1702A P:4.0850W PF:1.0000 Freq:0Hz Lamp Flux:346.947x1 lm		
NAME: RIBDC-12-35K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.3	Shielding Angle:

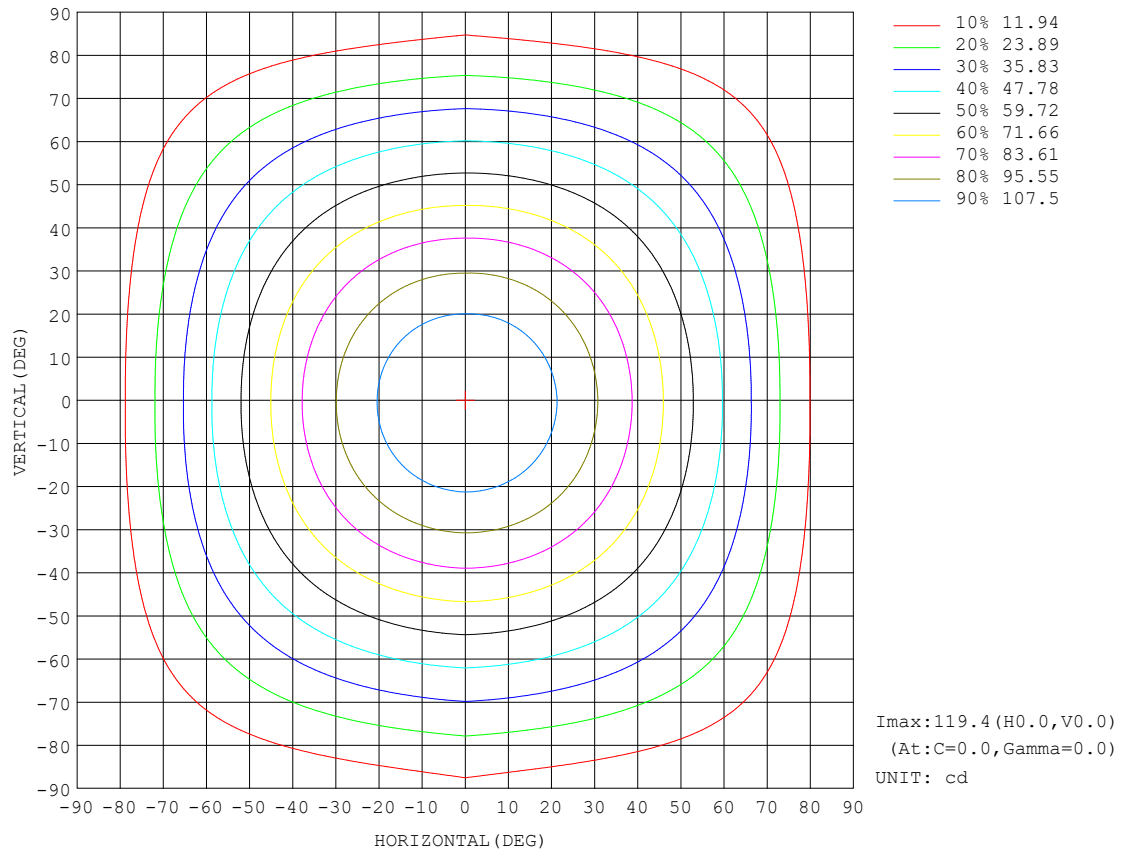
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) k(RI) x RCR = 5									
k = 0.60	56	44	37	55	44	37	54	43	37	30
0.80	66	54	46	64	53	46	62	52	46	39
1.00	74	62	55	72	62	55	70	63	54	46
1.25	81	70	63	79	69	62	76	67	61	53
1.50	86	75	68	84	74	67	80	72	66	58
2.00	92	84	77	90	82	76	86	79	74	65
2.50	96	88	82	94	87	81	89	83	78	69
3.00	100	93	87	97	91	85	92	87	82	72
4.00	104	98	93	101	96	91	96	91	88	77
5.00	106	101	97	103	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

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:0.1702A P:4.0850W PF:1.0000 Freq:0Hz Lamp Flux:346.947x1 lm		
NAME: RIBDC-12-35K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.3	Shielding Angle:

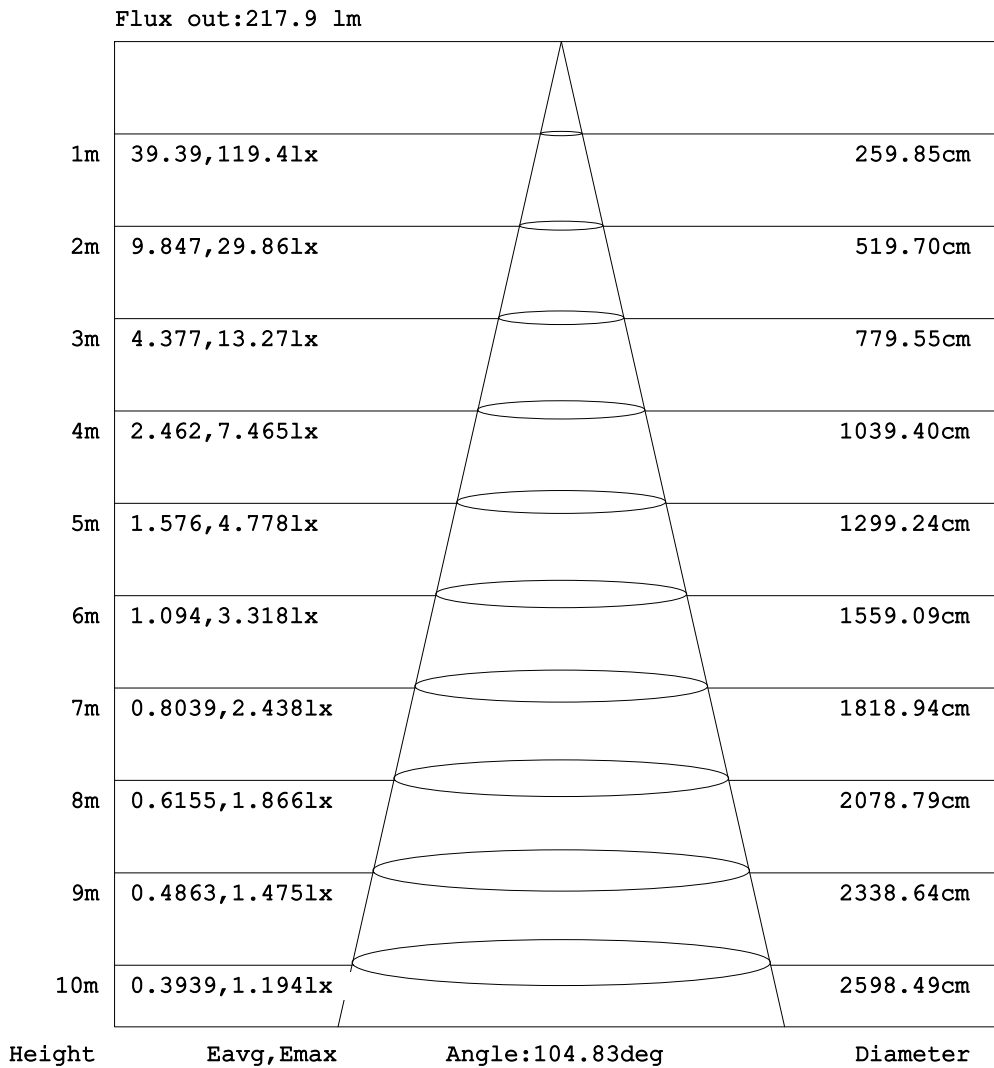


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JZ
Test Date:2023-08-08

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:0.1702A P:4.0850W PF:1.0000 Freq:0Hz Lamp Flux:346.947x1 lm		
NAME: RIBDC-12-35K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.3	Shielding Angle:



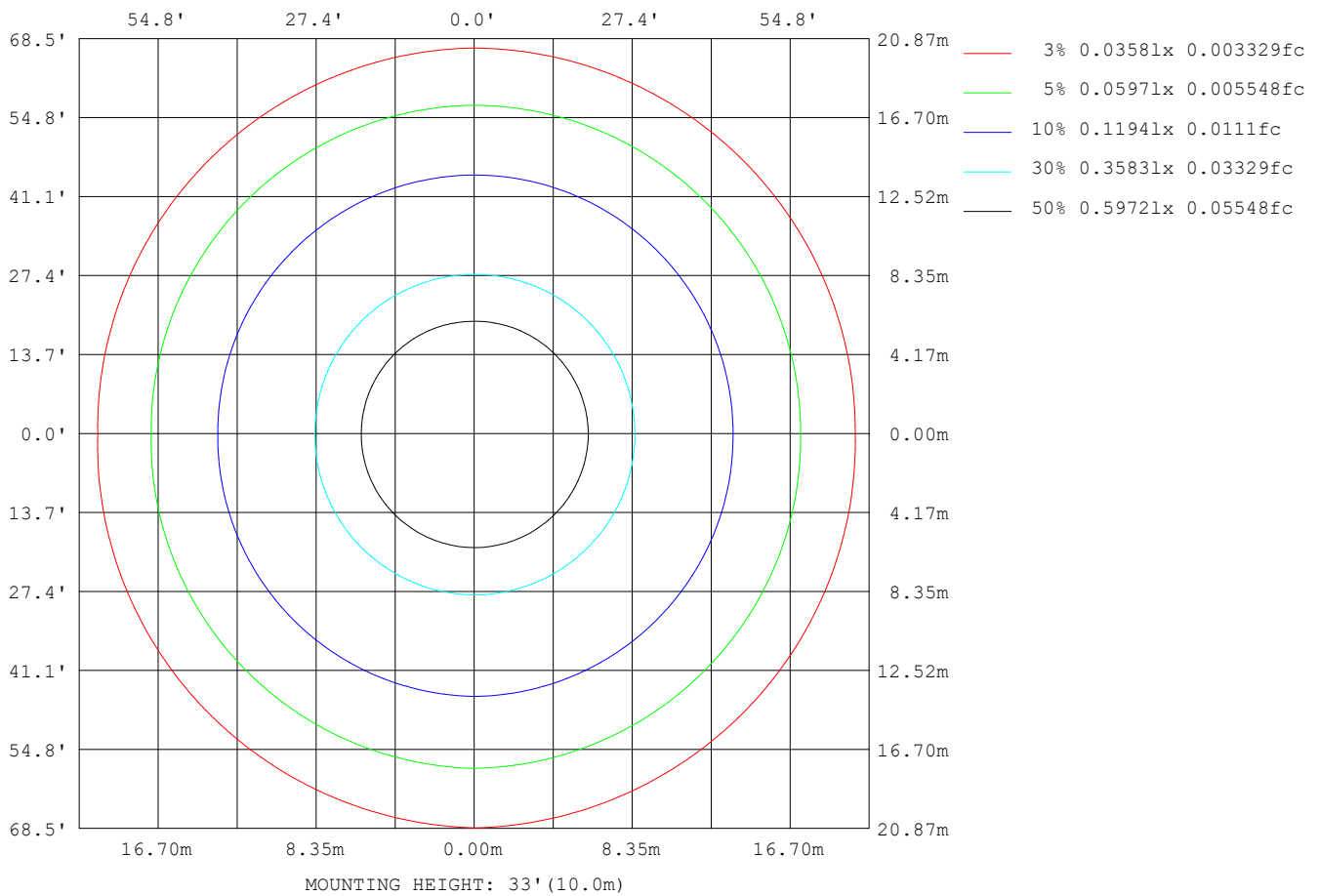
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:0.1702A P:4.0850W PF:1.0000 Freq:0Hz Lamp Flux:346.947x1 lm		
NAME: RIBDC-12-35K-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:0.1702A P:4.0850W PF:1.0000 Freq:0Hz Lamp Flux:346.947x1 lm		
NAME: RIBDC-12-35K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.3	Shielding Angle:

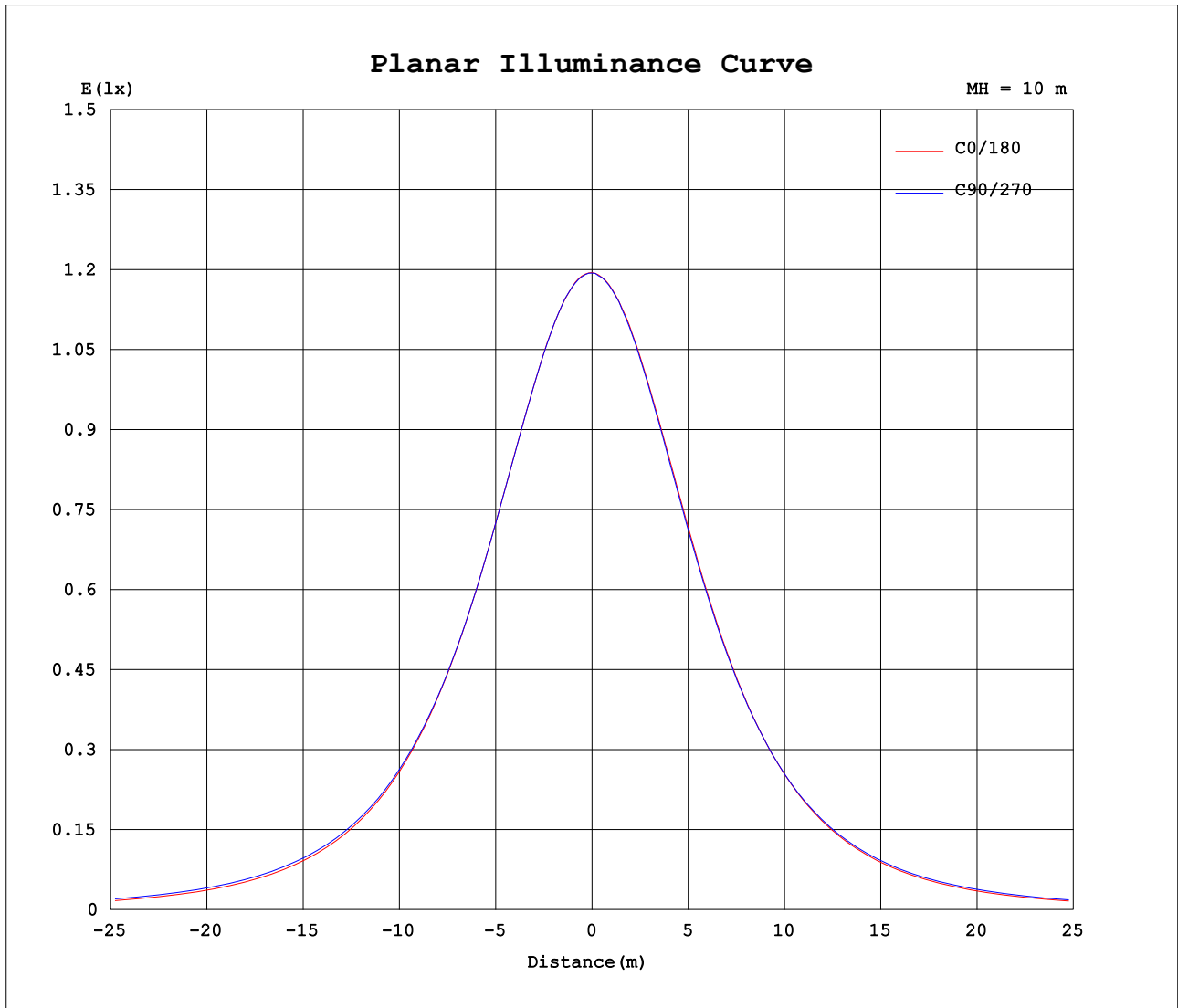
AvgL	cd/m2
L_0~180 (65) av	29430
L_0~180 (75) av	24906
L_0~180 (85) av	14632
L_90~270 (65) av	32831
L_90~270 (75) av	33796
L_90~270 (85) av	50068
L_45 (65) av	31510
L_45 (75) av	30387
L_45 (85) av	36613

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

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:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:24.001V I:0.1702A P:4.0850W PF:1.0000 Freq:0Hz Lamp Flux:346.947x1 lm		
NAME: RIBDC-12-35K-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	119	119	119	119														
5	119	119	119	118														
10	117	117	116	116														
15	114	114	113	112														
20	109	109	108	108														
25	103	103	102	102														
30	96.7	96.6	95.4	94.8														
35	89.4	89.5	88.0	87.5														
40	81.5	82.1	80.1	79.9														
45	73.2	74.4	71.8	71.9														
50	64.7	66.6	63.1	64.0														
55	56.0	58.8	54.4	56.0														
60	47.1	51.0	45.5	48.0														
65	38.2	43.3	36.4	40.0														
70	29.2	35.6	27.4	32.0														
75	20.3	28.1	18.4	24.4														
80	11.8	20.9	10.0	17.2														
85	4.52	14.5	3.13	11.7														
90	0.33	10.2	0.50	9.72														
95	0.13	9.43	0.30	9.55														
100	0.13	9.20	0.19	9.50														
105	0.13	9.11	0.17	9.45														
110	0.15	9.03	0.21	9.30														
115	0.16	8.81	0.26	9.05														
120	0.18	8.49	0.28	8.73														
125	0.21	8.09	0.33	8.01														
130	0.27	6.47	0.34	5.37														
135	0.31	6.03	0.38	2.32														
140	0.33	5.43	0.42	0.53														
145	0.35	5.10	0.45	0.44														
150	0.37	3.54	0.47	0.43														
155	0.43	1.68	0.51	0.42														
160	0.44	0.57	0.54	0.44														
165	0.47	0.58	0.55	0.49														
170	0.52	0.57	0.56	0.52														
175	0.54	0.58	0.57	0.55														
180	0.55	0.58	0.57	0.57														

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: