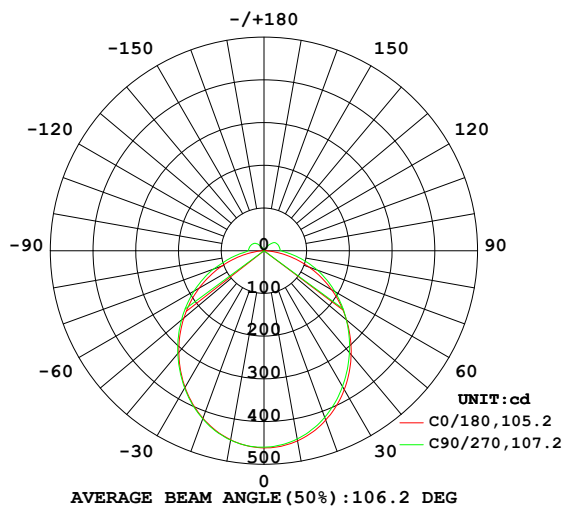


LUMINAIRE PHOTOMETRIC TEST REPORT

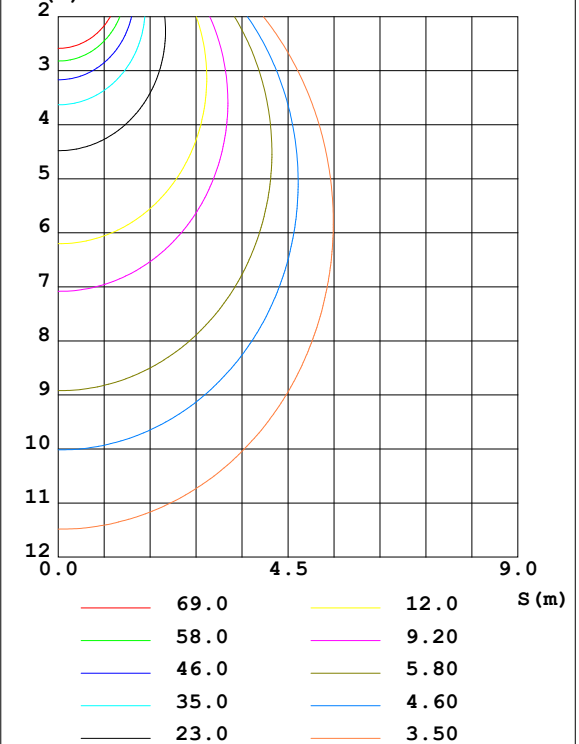
Test:U:24.001V I:0.6790A P:16.297W PF:1.0000 Freq:0Hz Lamp Flux:1345.49x1 lm		
NAME: RIBDC-47-35K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*1.2	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 82.56 lm/W			
MODEL		I _{max} (cd)	461.4	S/MH (C0/180)	1.20
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)	1.21
RATED VOLTAGE (V)		TOTAL FLUX (lm)	1345.5	η UP, DN (C0-180)	3.4, 47.2
NOMINAL FLUX (lm)	1345.49	CIE CLASS	DIRECT	η UP, DN (C180-360)	3.2, 46.2
LAMPS INSIDE	1	η up (%)	6.6	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)		η down (%)	93.4	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: 2023-08-09

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:

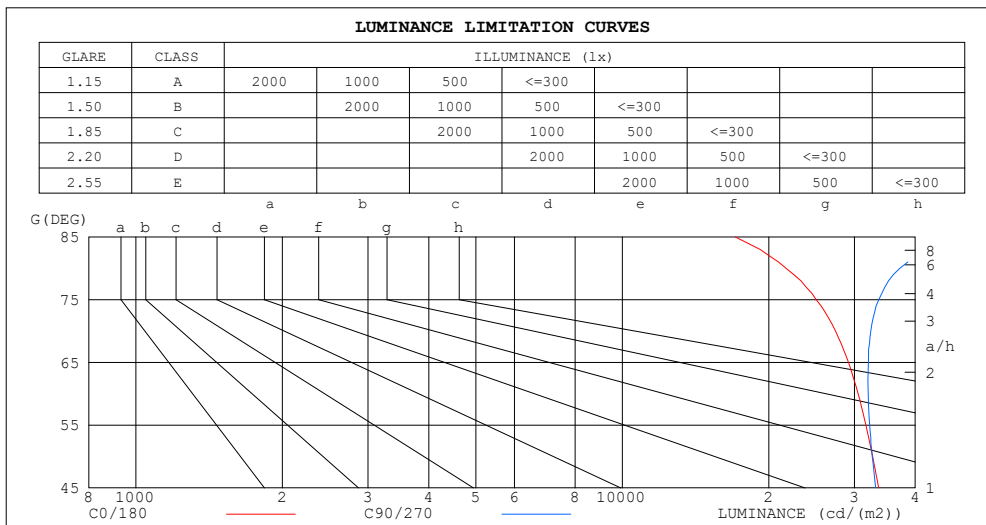
γ	C0	C90	C180	C270					γ	Φ zone	Φ total	%lum, lamp
10	451.9	447.5	449.5	450.2					0- 10	43.45	43.45	3.23,3.23
20	422.0	415.2	417.4	419.1					10- 20	123.0	166.5	12.4,12.4
30	375.7	367.5	369.5	371.1					20- 30	182.5	349.0	25.9,25.9
40	317.5	311.2	310.4	314.1					30- 40	214.5	563.6	41.9,41.9
50	252.3	251.7	244.9	251.9					40- 50	217.7	781.3	58.1,58.1
60	183.2	192.1	175.6	189.3					50- 60	194.7	976.0	72.5,72.5
70	112.6	133.0	104.7	125.8					60- 70	150.5	1127	83.7,83.7
80	45.24	77.45	38.20	68.36					70- 80	91.93	1218	90.6,90.6
90	2.065	40.23	0.9460	37.73					80- 90	38.16	1257	93.4,93.4
100	0.6021	37.42	0.7146	35.68					90-100	20.74	1277	94.9,94.9
110	0.7387	36.37	0.9240	34.08					100-110	19.40	1297	96.4,96.4
120	0.9605	34.36	1.183	31.47					110-120	17.43	1314	97.7,97.7
130	1.231	29.84	1.417	27.54					120-130	14.54	1329	98.8,98.8
140	1.574	17.82	1.638	17.50					130-140	9.736	1338	99.5,99.5
150	1.712	6.890	1.872	9.441					140-150	4.556	1343	99.8,99.8
160	1.897	2.710	2.044	3.058					150-160	1.608	1345	99.9,99.9
170	2.020	2.377	2.145	2.254					160-170	0.6431	1345	100,100
180	2.131	2.155	2.155	2.180					170-180	0.2085	1345	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:2023-08-09

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:0.6790A P:16.297W PF:1.0000 Freq:0Hz Lamp Flux:1345.49x1 lm		
NAME: RIBDC-47-35K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*1.2	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	17073	52155
80	21712	37169
75	25033	33666
70	27430	32412
65	29183	32046
60	30534	32013
55	31689	32250
50	32705	32635
45	33642	33194

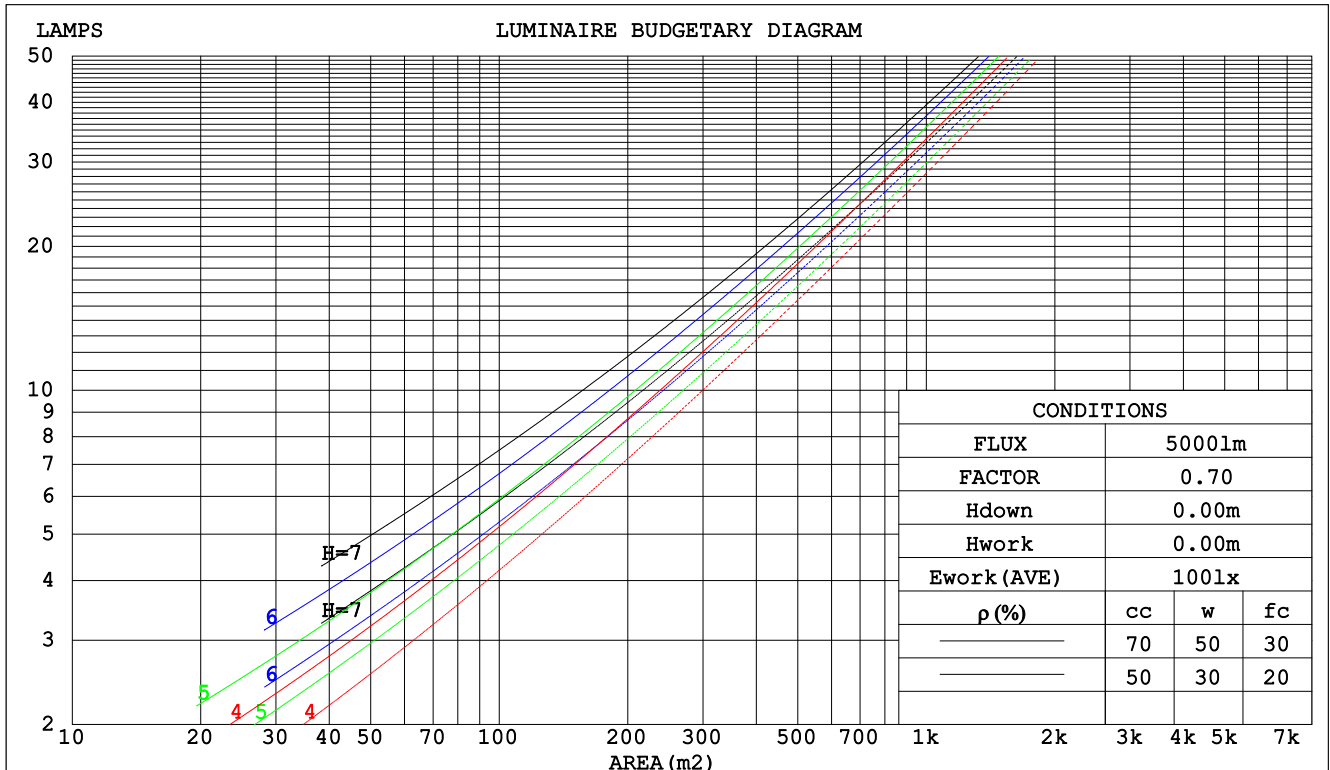
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JZ
Test Date:2023-08-09

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:0.6790A P:16.297W PF:1.0000 Freq:0Hz Lamp Flux:1345.49x1 lm		
NAME: RIBDC-47-35K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*1.2	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	1.17	1.17	1.17	1.14	1.14	1.14	1.07	1.07	1.07	1.01	1.01	1.01	.96	.96	.96	.93
1.0	1.02	.98	.94	.99	.95	.91	.94	.90	.87	.88	.86	.83	.84	.82	.80	.77
2.0	.89	.82	.76	.86	.80	.75	.82	.76	.72	.77	.73	.69	.73	.70	.67	.64
3.0	.78	.70	.63	.76	.68	.62	.72	.66	.60	.68	.63	.58	.65	.60	.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	.44	.55	.48	.43	.52	.47	.42	.40
6.0	.56	.47	.40	.54	.46	.40	.52	.44	.39	.49	.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	.24	.23



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JZ
Test Date:2023-08-09

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:0.6790A P:16.297W PF:1.0000 Freq:0Hz		
Lamp Flux:1345.49x1 lm		
NAME: RIBDC-47-35K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*1.2	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	.275	.159	.051	.261	.151	.049		
2.0	.293	.160	.049	.285	.157	.048	.270	.150	.047	.256	.143	.045	.243	.137	.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	.217	.117	.035	.207	.112	.034		
5.0	.228	.116	.034	.222	.114	.033	.211	.110	.032	.201	.106	.032	.192	.102	.031		
6.0	.211	.106	.030	.206	.104	.030	.196	.101	.029	.187	.097	.029	.178	.094	.028		
7.0	.196	.097	.028	.192	.096	.027	.183	.092	.027	.175	.089	.026	.167	.087	.025		
8.0	.183	.090	.025	.179	.088	.025	.171	.085	.024	.163	.083	.024	.156	.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	.241	.241	.241	.206	.206	.206	.140	.140	.140	.081	.081	.081	.026	.026	.026	
1.0	.232	.207	.185	.198	.177	.159	.136	.122	.110	.078	.071	.064	.025	.023	.021	
2.0	.223	.183	.149	.191	.158	.129	.131	.109	.090	.076	.063	.053	.024	.021	.017	
3.0	.216	.166	.126	.185	.143	.109	.127	.099	.076	.073	.058	.045	.024	.019	.015	
4.0	.208	.153	.110	.178	.132	.096	.123	.092	.067	.071	.054	.040	.023	.018	.013	
5.0	.201	.142	.099	.172	.123	.086	.119	.086	.061	.069	.050	.036	.022	.016	.012	
6.0	.193	.134	.091	.166	.116	.080	.115	.081	.056	.067	.048	.033	.021	.016	.011	
7.0	.187	.127	.086	.160	.110	.075	.111	.077	.053	.064	.046	.031	.021	.015	.010	
8.0	.180	.121	.081	.155	.105	.071	.107	.074	.050	.062	.044	.030	.020	.014	.010	
9.0	.174	.117	.078	.150	.101	.068	.104	.071	.048	.061	.042	.029	.020	.014	.010	
10.0	.169	.112	.075	.145	.098	.065	.101	.069	.046	.059	.041	.028	.019	.013	.009	

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JZ
Test Date:2023-08-09

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:0.6790A P:16.297W PF:1.0000 Freq:0Hz Lamp Flux:1345.49x1 lm										
NAME: RIBDC-47-35K-AM					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.: RAYHIL					SUR.: 0.01*1.2			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	23.4	24.8	23.7	25.1	25.5	23.5	24.9	23.9	25.2	25.6
3H	24.9	26.2	25.3	26.5	26.9	25.2	26.5	25.6	26.9	27.3
4H	25.4	26.7	25.8	27.1	27.4	26.1	27.3	26.5	27.7	28.1
6H	25.8	27.0	26.3	27.4	27.8	26.8	28.0	27.2	28.4	28.8
8H	26.0	27.1	26.4	27.5	27.9	27.2	28.3	27.6	28.7	29.1
12H	26.0	27.1	26.5	27.5	27.9	27.6	28.7	28.0	29.1	29.5
4H 2H	24.0	25.2	24.4	25.6	26.0	24.1	25.3	24.5	25.7	26.1
3H	25.7	26.8	26.1	27.2	27.6	26.0	27.1	26.5	27.5	28.0
4H	26.4	27.4	26.9	27.8	28.3	27.0	28.0	27.4	28.4	28.9
6H	26.9	27.8	27.4	28.3	28.8	27.9	28.8	28.4	29.2	29.7
8H	27.1	27.9	27.6	28.4	28.9	28.3	29.2	28.9	29.6	30.2
12H	27.2	28.0	27.7	28.5	29.0	28.8	29.6	29.4	30.1	30.6
8H 4H	26.7	27.6	27.3	28.0	28.6	27.2	28.1	27.8	28.5	29.1
6H	27.5	28.1	28.0	28.7	29.2	28.3	29.0	28.9	29.5	30.1
8H	27.7	28.3	28.3	28.9	29.5	28.9	29.5	29.5	30.1	30.7
12H	27.9	28.5	28.5	29.0	29.6	29.6	30.1	30.2	30.7	31.3
12H 4H	26.8	27.5	27.3	28.0	28.6	27.3	28.0	27.8	28.5	29.1
6H	27.6	28.2	28.1	28.7	29.3	28.4	29.0	29.0	29.6	30.2
8H	27.9	28.4	28.5	29.0	29.6	29.1	29.6	29.6	30.1	30.8
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, 1345 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 1.0)
Area: 0.012 m2

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JZ
Test Date:2023-08-09

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:0.6790A P:16.297W PF:1.0000 Freq:0Hz Lamp Flux:1345.49x1 lm		
NAME: RIBDC-47-35K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*1.2	Shielding Angle:

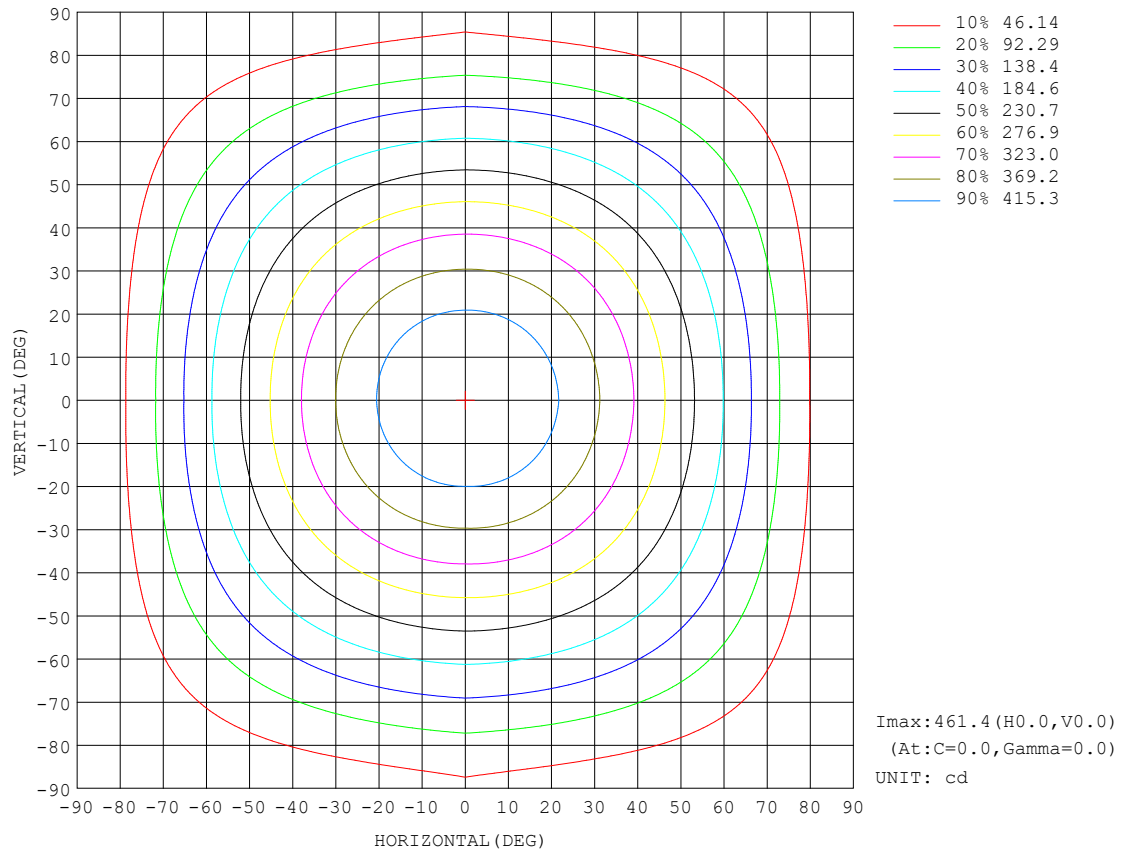
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) k(RI) x RCR = 5									
k = 0.60	56	44	37	55	44	37	53	43	37	30
0.80	66	54	46	64	53	46	62	52	46	38
1.00	74	62	55	72	62	55	69	62	54	46
1.25	81	70	62	79	69	62	76	67	61	53
1.50	86	75	68	84	74	67	80	72	66	58
2.00	92	83	77	90	82	76	86	79	74	65
2.50	96	88	82	94	86	81	89	83	78	68
3.00	100	92	87	97	90	85	92	87	82	72
4.00	104	98	93	101	95	91	96	91	87	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:2023-08-09

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:0.6790A P:16.297W PF:1.0000 Freq:0Hz Lamp Flux:1345.49x1 lm		
NAME: RIBDC-47-35K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*1.2	Shielding Angle:

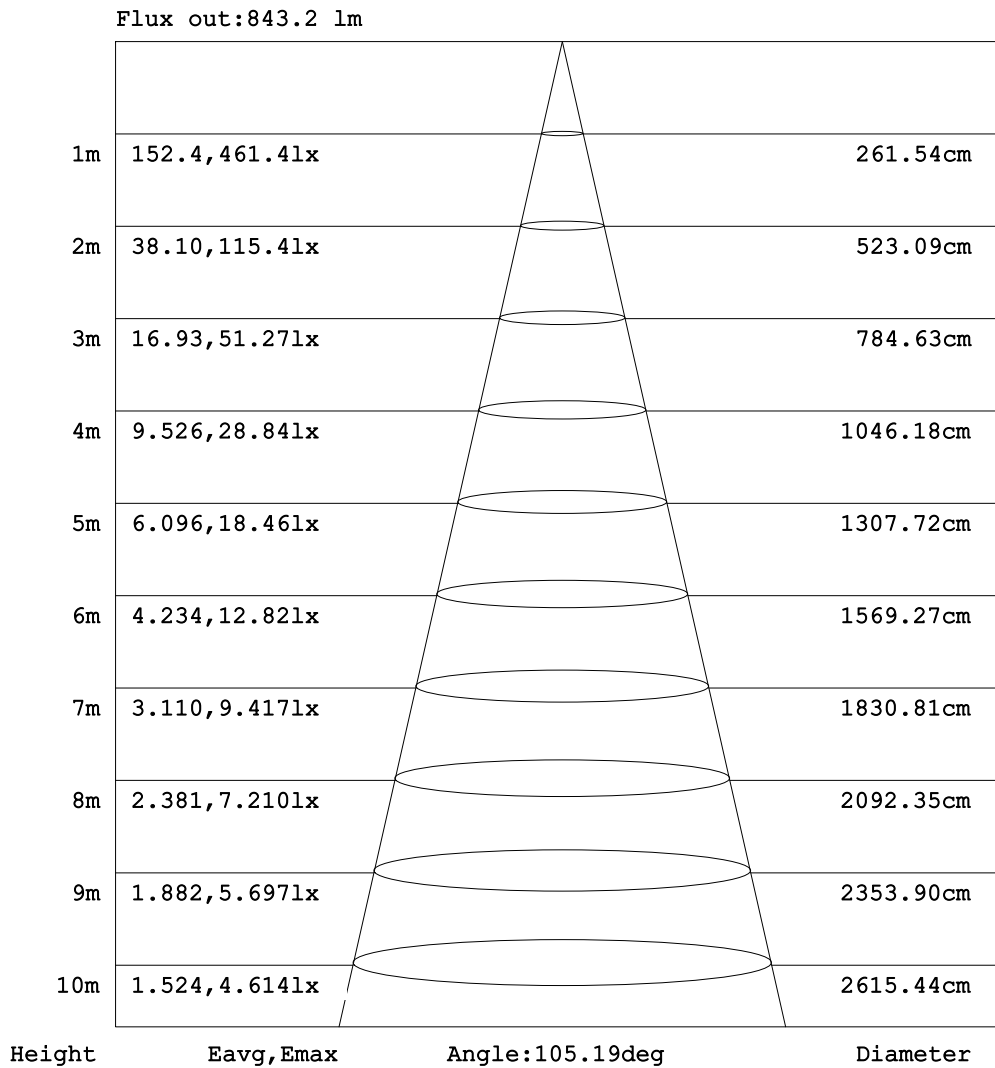


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JZ
Test Date:2023-08-09

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:0.6790A P:16.297W PF:1.0000 Freq:0Hz Lamp Flux:1345.49x1 lm		
NAME: RIBDC-47-35K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*1.2	Shielding Angle:



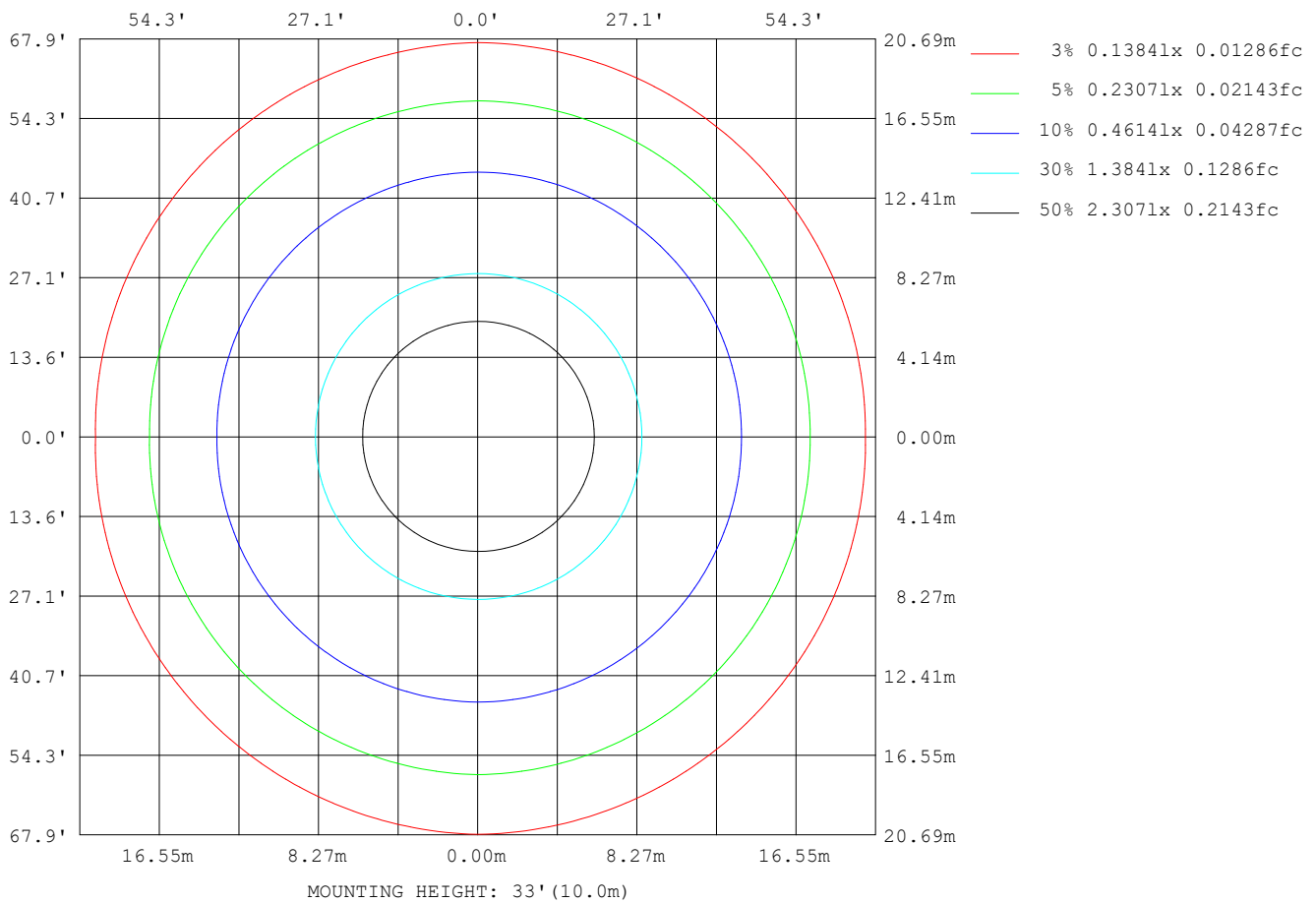
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JZ
Test Date:2023-08-09

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:0.6790A P:16.297W PF:1.0000 Freq:0Hz Lamp Flux:1345.49x1 lm		
NAME: RIBDC-47-35K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*1.2	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JZ
Test Date:2023-08-09

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:0.6790A P:16.297W PF:1.0000 Freq:0Hz Lamp Flux:1345.49x1 lm		
NAME: RIBDC-47-35K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*1.2	Shielding Angle:

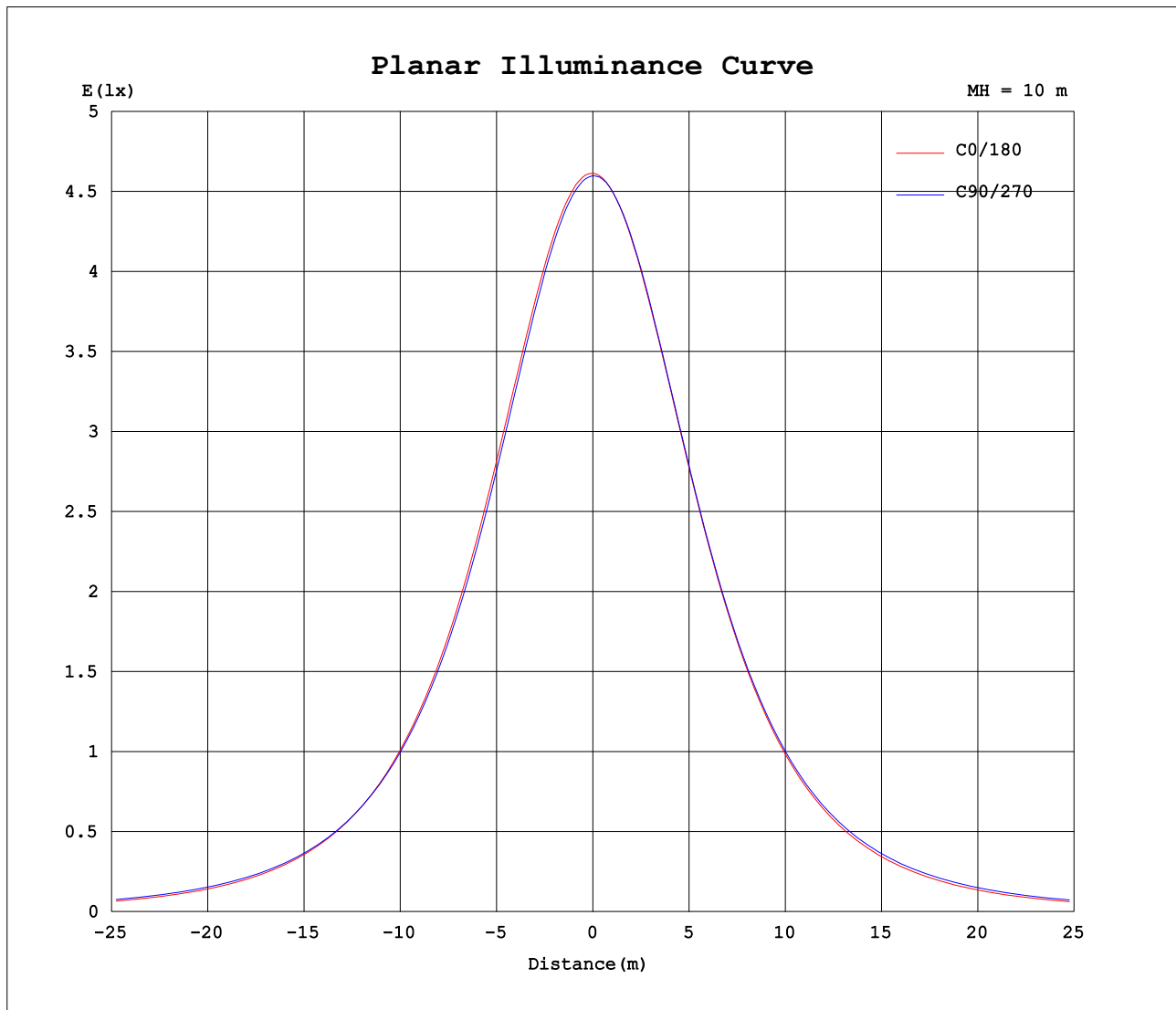
AvgL	cd/m2
L_0~180 (65) av	28400
L_0~180 (75) av	23798
L_0~180 (85) av	14596
L_90~270 (65) av	31584
L_90~270 (75) av	31981
L_90~270 (85) av	48751
L_45 (65) av	30341
L_45 (75) av	28835
L_45 (85) av	35788

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JZ
Test Date:2023-08-09

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: 2023-08-09

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:0.6790A P:16.297W PF:1.0000 Freq:0Hz Lamp Flux:1345.49x1 lm		
NAME: RIBDC-47-35K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*1.2	Shielding Angle:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	90	180	270															
0	461	460	461	460															
5	459	456	458	458															
10	452	448	450	450															
15	439	433	436	437															
20	422	415	417	419															
25	401	393	395	397															
30	376	367	369	371															
35	348	340	341	343															
40	317	311	310	314															
45	285	282	278	283															
50	252	252	245	252															
55	218	222	211	221															
60	183	192	176	189															
65	148	163	140	158															
70	113	133	105	126															
75	77.7	105	70.1	94.1															
80	45.2	77.5	38.2	68.4															
85	17.9	54.5	12.7	47.4															
90	2.06	40.2	0.95	37.7															
95	0.67	37.9	0.68	36.3															
100	0.60	37.4	0.71	35.7															
105	0.64	37.0	0.84	35.0															
110	0.74	36.4	0.92	34.1															
115	0.85	35.5	1.05	32.9															
120	0.96	34.4	1.18	31.5															
125	1.15	32.9	1.32	29.7															
130	1.23	29.8	1.42	27.5															
135	1.37	23.9	1.56	23.3															
140	1.57	17.8	1.64	17.5															
145	1.63	11.9	1.79	13.0															
150	1.71	6.89	1.87	9.44															
155	1.81	3.62	1.97	5.56															
160	1.90	2.71	2.04	3.06															
165	1.96	2.59	2.08	2.30															
170	2.02	2.38	2.14	2.25															
175	2.12	2.24	2.15	2.21															
180	2.13	2.16	2.16	2.18															

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JZ
Test Date:2023-08-09

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: