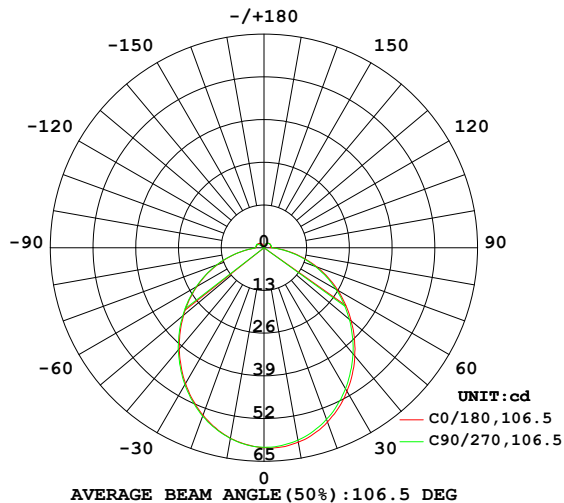


LUMINAIRE PHOTOMETRIC TEST REPORT

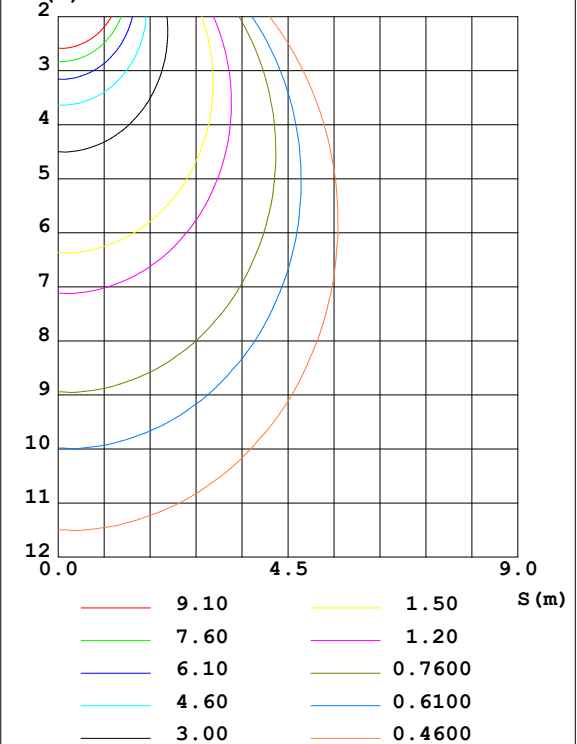
Test:U:24.001V I:0.0955A P:2.2921W PF:1.0000 Freq:0Hz Lamp Flux:178.503x1 lm		
NAME: RIBDC-LL-35K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.1	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 77.88 lm/W			
MODEL	L Type	I _{max} (cd)	61.03	S/MH (C0/180)	1.18
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)	1.19
RATED VOLTAGE (V)		TOTAL FLUX (lm)	178.50	η UP, DN (C0-180)	3.4, 48.2
NOMINAL FLUX (lm)	178.503	CIE CLASS	DIRECT	η UP, DN (C180-360)	3.1, 45.3
LAMPS INSIDE	1	η up (%)	6.5	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)		η down (%)	93.5	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:

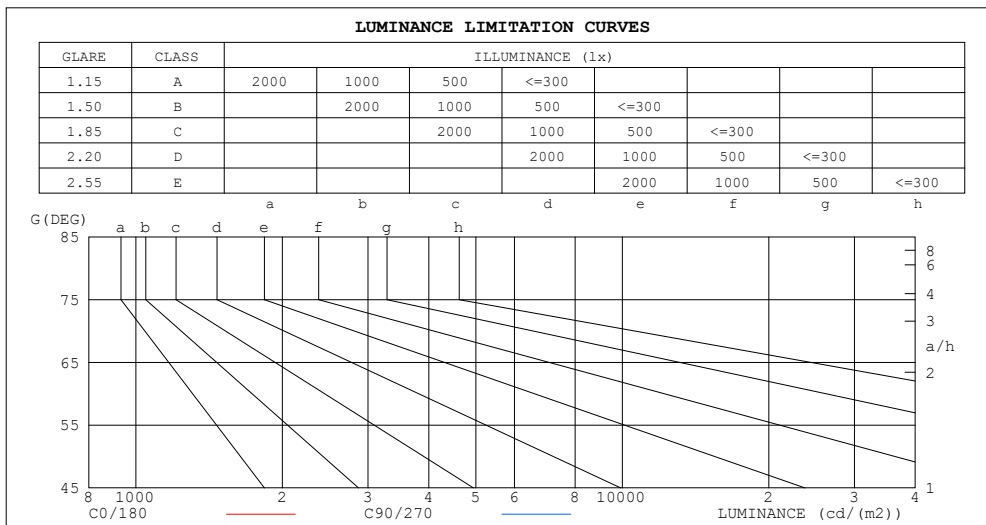
γ	C0	C90	C180	C270					γ	Φ zone	Φ total	%lum, lamp
10	60.09	59.44	58.90	58.96					0- 10	5.732	5.732	3.21,3.21
20	56.45	55.53	54.22	54.58					10- 20	16.23	21.96	12.3,12.3
30	50.47	49.57	47.73	48.15					20- 30	24.10	46.06	25.8,25.8
40	42.99	42.15	40.17	40.61					30- 40	28.36	74.42	41.7,41.7
50	34.64	33.92	31.93	32.25					40- 50	28.85	103.3	57.8,57.8
60	26.02	25.29	23.54	23.88					50- 60	25.90	129.2	72.4,72.4
70	17.14	16.59	15.14	15.38					60- 70	20.16	149.3	83.6,83.6
80	8.618	8.184	7.099	7.297					70- 80	12.50	161.8	90.7,90.7
90	2.763	2.499	2.591	2.624					80- 90	5.125	166.9	93.5,93.5
100	2.155	2.303	2.402	2.527					90-100	2.591	169.5	95,95
110	2.227	2.264	2.316	2.480					100-110	2.470	172.0	96.4,96.4
120	2.210	2.180	2.229	2.242					110-120	2.270	174.3	97.6,97.6
130	2.082	2.007	2.008	0.1971					120-130	1.691	176.0	98.6,98.6
140	1.811	1.785	1.761	0.1847					130-140	1.154	177.1	99.2,99.2
150	1.454	1.526	1.416	0.1847					140-150	0.8031	177.9	99.7,99.7
160	0.7641	0.7495	0.8491	0.1847					150-160	0.4242	178.3	99.9,99.9
170	0.4436	0.3030	0.4182	0.2093					160-170	0.1284	178.5	100,100
180	0.2956	0.2833	0.2956	0.2340					170-180	0.0289	178.5	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:0.0955A P:2.2921W PF:1.0000 Freq:0Hz Lamp Flux:178.503x1 lm		
NAME: RIBDC-LL-35K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.1	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	58026	53206
80	49627	47128
75	49340	47421
70	50117	48520
65	50965	49643
60	52041	50580
55	52862	51609
50	53896	52775
45	55052	53846

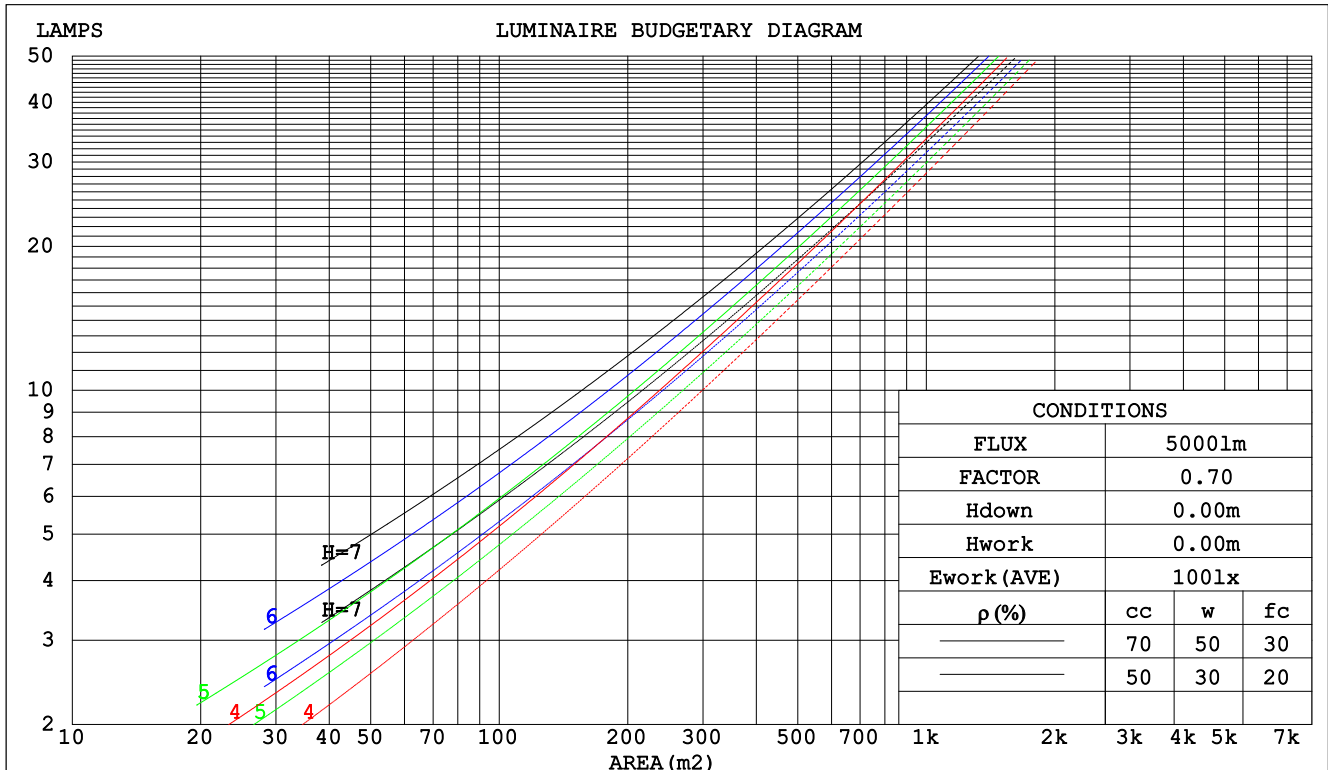
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JZ
Test Date:2023-08-08

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:0.0955A P:2.2921W PF:1.0000 Freq:0Hz Lamp Flux:178.503x1 lm		
NAME: RIBDC-LL-35K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.1	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	.97	.93	.99	.95	.91	.94	.90	.87	.88	.86	.83	.84	.82	.80	.77
2.0	.89	.82	.76	.86	.80	.74	.82	.76	.72	.77	.73	.69	.73	.70	.67	.64
3.0	.78	.70	.63	.76	.68	.62	.72	.65	.60	.68	.63	.58	.65	.60	.56	.54
4.0	.69	.60	.53	.67	.59	.53	.64	.57	.51	.61	.55	.50	.58	.53	.48	.46
5.0	.62	.53	.46	.60	.52	.45	.57	.50	.44	.55	.48	.43	.52	.47	.42	.40
6.0	.55	.47	.40	.54	.46	.40	.52	.44	.39	.49	.43	.38	.47	.42	.37	.35
7.0	.50	.42	.35	.49	.41	.35	.47	.40	.34	.45	.39	.34	.43	.37	.33	.31
8.0	.46	.37	.32	.45	.37	.31	.43	.36	.31	.41	.35	.30	.40	.34	.30	.28
9.0	.42	.34	.28	.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	.28	.24	.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:0.0955A P:2.2921W PF:1.0000 Freq:0Hz		
Lamp Flux:178.503x1 lm		
NAME: RIBDC-LL-35K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.1	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	.168	.054	.277	.160	.051	.262	.152	.049	
2.0	.294	.161	.049	.286	.158	.049	.271	.151	.047	.257	.144	.045	.244	.138	.044	
3.0	.270	.144	.043	.263	.141	.042	.249	.135	.041	.237	.130	.040	.225	.125	.039	
4.0	.248	.129	.038	.242	.126	.037	.230	.122	.036	.218	.117	.035	.208	.113	.034	
5.0	.229	.117	.034	.223	.114	.033	.212	.110	.033	.202	.107	.032	.192	.103	.031	
6.0	.212	.106	.030	.207	.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	.180	.088	.025	.171	.086	.024	.164	.083	.024	.157	.080	.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	.240	.240	.240	.205	.205	.205	.140	.140	.140	.080	.080	.080	.026	.026	.026	
1.0	.231	.206	.183	.197	.177	.158	.135	.122	.109	.078	.070	.063	.025	.023	.021	
2.0	.223	.182	.148	.191	.157	.128	.131	.108	.089	.075	.063	.052	.024	.020	.017	
3.0	.215	.165	.125	.184	.142	.108	.126	.099	.076	.073	.058	.045	.023	.019	.015	
4.0	.207	.152	.109	.178	.131	.095	.122	.091	.067	.071	.053	.039	.023	.017	.013	
5.0	.200	.141	.098	.172	.122	.085	.118	.085	.060	.068	.050	.036	.022	.016	.012	
6.0	.193	.133	.090	.165	.115	.079	.114	.081	.056	.066	.047	.033	.021	.016	.011	
7.0	.186	.126	.084	.160	.109	.074	.110	.077	.052	.064	.045	.031	.021	.015	.010	
8.0	.179	.120	.080	.154	.105	.070	.107	.073	.050	.062	.043	.030	.020	.014	.010	
9.0	.173	.116	.077	.149	.100	.067	.103	.071	.047	.060	.042	.028	.020	.014	.009	
10.0	.168	.111	.074	.144	.097	.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:0.0955A P:2.2921W PF:1.0000 Freq:0Hz Lamp Flux:178.503x1 lm										
NAME: RIBDC-LL-35K-AM					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.: RAYHIL					SUR.: 0.01*0.1			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	32.3	33.7	32.7	34.1	34.4	32.2	33.6	32.6	34.0	34.3
3H	34.0	35.3	34.3	35.6	36.0	33.8	35.1	34.2	35.5	35.9
4H	34.7	35.9	35.1	36.3	36.7	34.5	35.8	34.9	36.1	36.5
6H	35.3	36.4	35.7	36.8	37.2	35.1	36.3	35.5	36.7	37.1
8H	35.5	36.7	36.0	37.0	37.5	35.3	36.5	35.8	36.9	37.3
12H	35.7	36.8	36.2	37.2	37.7	35.5	36.6	36.0	37.0	37.5
4H 2H	32.9	34.2	33.3	34.5	34.9	32.8	34.1	33.2	34.5	34.8
3H	34.8	35.8	35.2	36.3	36.7	34.7	35.7	35.1	36.2	36.6
4H	35.6	36.6	36.1	37.0	37.5	35.5	36.5	36.0	36.9	37.4
6H	36.3	37.2	36.8	37.7	38.2	36.2	37.1	36.7	37.6	38.1
8H	36.7	37.5	37.2	38.0	38.5	36.5	37.3	37.0	37.8	38.3
12H	37.0	37.7	37.5	38.2	38.8	36.8	37.5	37.3	38.0	38.6
8H 4H	35.9	36.7	36.4	37.2	37.7	35.8	36.6	36.3	37.1	37.6
6H	36.8	37.5	37.4	38.0	38.6	36.7	37.4	37.2	37.9	38.5
8H	37.3	37.9	37.8	38.4	39.0	37.1	37.7	37.7	38.3	38.8
12H	37.7	38.2	38.3	38.8	39.4	37.5	38.0	38.1	38.6	39.2
12H 4H	35.9	36.7	36.5	37.2	37.7	35.8	36.6	36.4	37.1	37.6
6H	36.9	37.5	37.5	38.1	38.7	36.8	37.4	37.3	37.9	38.5
8H	37.4	37.9	38.0	38.5	39.1	37.3	37.8	37.8	38.3	39.0
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, 178.5 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -6.0)
Area: 0.001 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:0.0955A P:2.2921W PF:1.0000 Freq:0Hz Lamp Flux:178.503x1 lm		
NAME: RIBDC-LL-35K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.1	Shielding Angle:

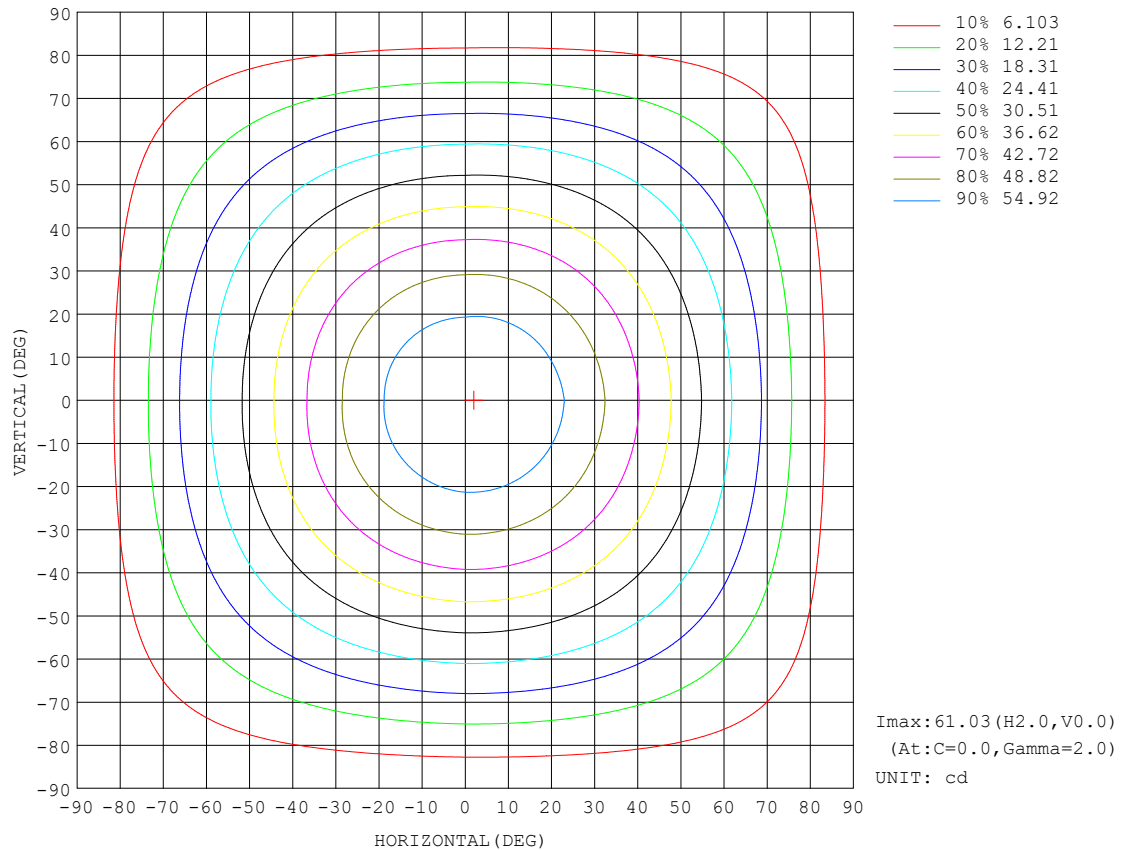
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) k(RI) x RCR = 5									
k = 0.60	56	44	37	55	44	37	53	43	37	30
0.80	65	54	46	64	53	46	62	52	45	38
1.00	74	62	55	72	61	54	69	62	54	46
1.25	81	70	62	79	69	62	75	67	61	53
1.50	85	75	68	83	74	67	80	72	66	57
2.00	92	83	77	90	82	76	86	79	73	64
2.50	96	88	82	94	86	80	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:2023-08-08

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:0.0955A P:2.2921W PF:1.0000 Freq:0Hz Lamp Flux:178.503x1 lm		
NAME: RIBDC-LL-35K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.1	Shielding Angle:

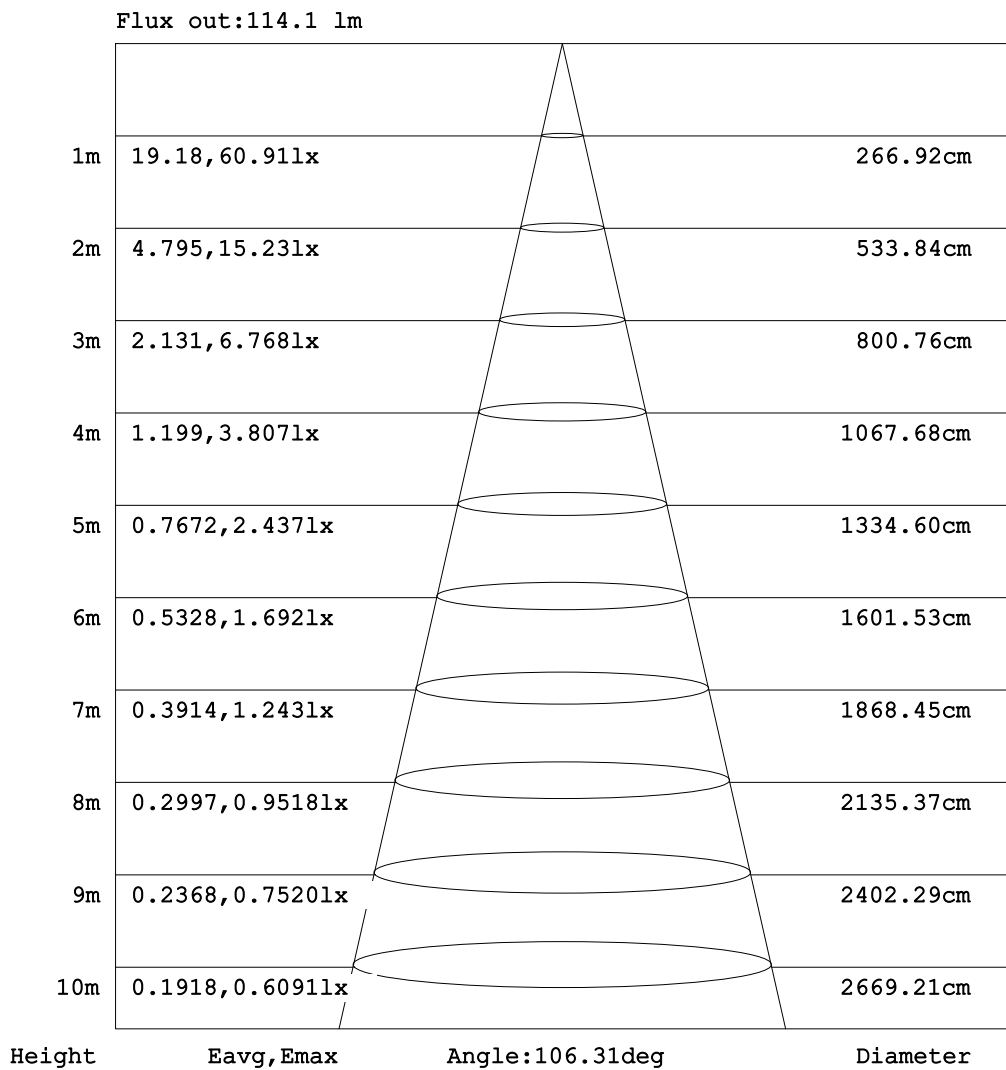


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JZ
Test Date:2023-08-08

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:0.0955A P:2.2921W PF:1.0000 Freq:0Hz Lamp Flux:178.503x1 lm		
NAME: RIBDC-LL-35K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.1	Shielding Angle:



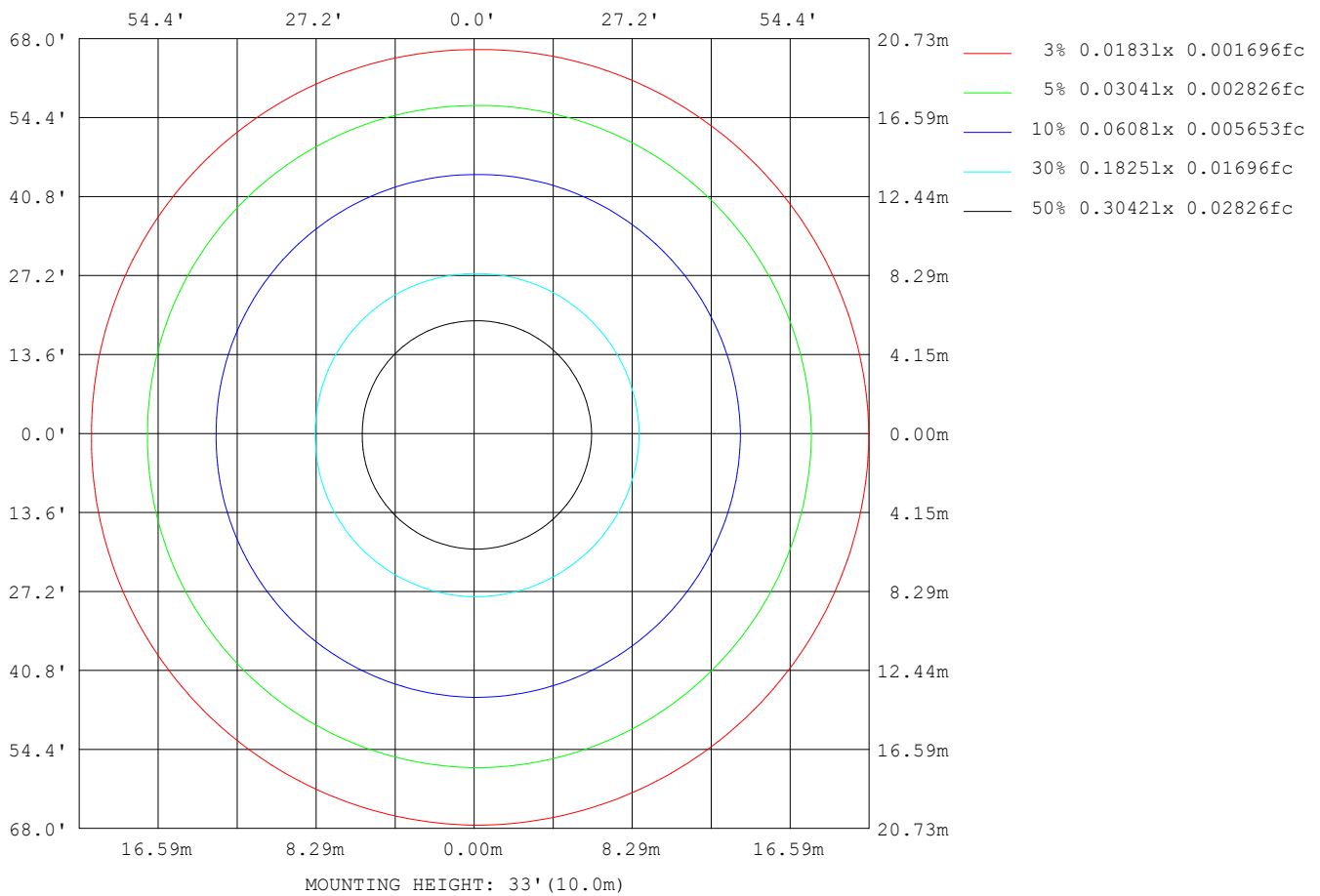
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:0.0955A P:2.2921W PF:1.0000 Freq:0Hz Lamp Flux:178.503x1 lm		
NAME: RIBDC-LL-35K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.1	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:0.0955A P:2.2921W PF:1.0000 Freq:0Hz Lamp Flux:178.503x1 lm		
NAME: RIBDC-LL-35K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.1	Shielding Angle:

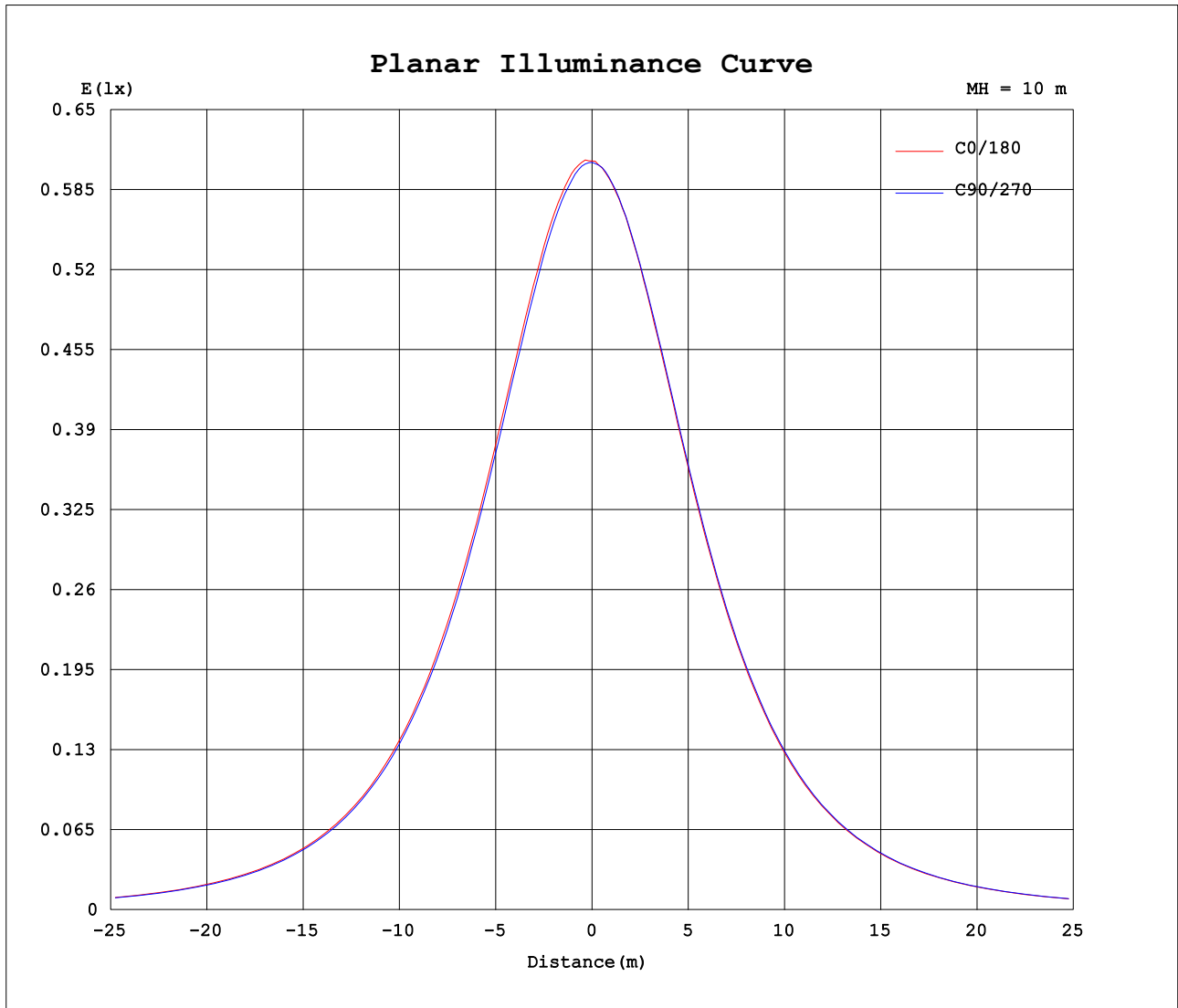
AvgL	cd/m2
L_0~180 (65) av	48378
L_0~180 (75) av	45831
L_0~180 (85) av	51872
L_90~270 (65) av	48013
L_90~270 (75) av	45258
L_90~270 (85) av	50301
L_45 (65) av	47989
L_45 (75) av	45253
L_45 (85) av	50506

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:0.0955A P:2.2921W PF:1.0000 Freq:0Hz Lamp Flux:178.503x1 lm		
NAME: RIBDC-LL-35K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.1	Shielding Angle:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	90	180	270														
0	60.8	60.7	60.8	60.7														
5	60.9	60.4	60.1	60.2														
10	60.1	59.4	58.9	59.0														
15	58.6	57.8	56.8	57.0														
20	56.5	55.5	54.2	54.6														
25	53.8	52.8	51.2	51.5														
30	50.5	49.6	47.7	48.2														
35	46.9	45.9	44.0	44.4														
40	43.0	42.2	40.2	40.6														
45	38.9	38.1	36.1	36.5														
50	34.6	33.9	31.9	32.3														
55	30.3	29.6	27.8	28.2														
60	26.0	25.3	23.5	23.9														
65	21.5	21.0	19.4	19.6														
70	17.1	16.6	15.1	15.4														
75	12.8	12.3	11.0	11.2														
80	8.62	8.18	7.10	7.30														
85	5.06	4.64	3.98	4.13														
90	2.76	2.50	2.59	2.62														
95	1.97	2.32	2.51	2.59														
100	2.15	2.30	2.40	2.53														
105	2.20	2.29	2.35	2.50														
110	2.23	2.26	2.32	2.48														
115	2.22	2.23	2.28	2.44														
120	2.21	2.18	2.23	2.24														
125	2.17	2.11	2.12	1.04														
130	2.08	2.01	2.01	0.20														
135	1.95	1.91	1.91	0.18														
140	1.81	1.79	1.76	0.18														
145	1.65	1.63	1.62	0.18														
150	1.45	1.53	1.42	0.18														
155	1.02	1.13	1.23	0.18														
160	0.76	0.75	0.85	0.18														
165	0.59	0.32	0.57	0.21														
170	0.44	0.30	0.42	0.21														
175	0.34	0.29	0.30	0.21														
180	0.30	0.28	0.30	0.23														

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
γ Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.444
Humidity:65.0%
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Remarks: