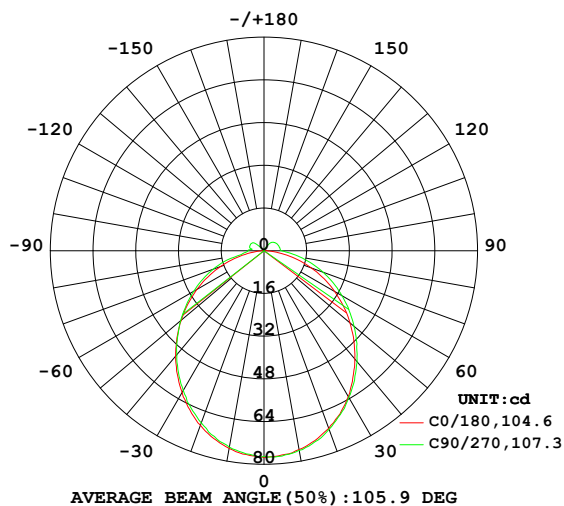


LUMINAIRE PHOTOMETRIC TEST REPORT

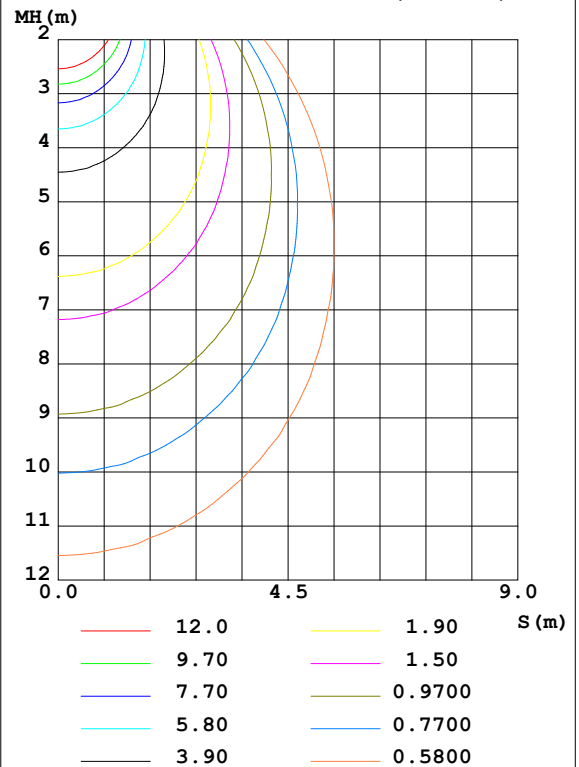
Test:U:24.001V I:0.1129A P:2.7097W PF:1.0000 Freq:0Hz Lamp Flux:223.897x1 lm		
NAME: RIBDC-8-40K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.2	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 82.63 lm/W			
MODEL		I _{max} (cd)	77.37	S/MH (C0/180)	1.19
NOMINAL POWER (W)		LOR (%)	100.0	S/MH (C90/270)	1.18
RATED VOLTAGE (V)		TOTAL FLUX (lm)	223.91	η UP,DN (C0-180)	3.4,48.5
NOMINAL FLUX (lm)	223.897	CIE CLASS	DIRECT	η UP,DN (C180-360)	2.8,45.3
LAMPS INSIDE	1	η up (%)	6.2	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:

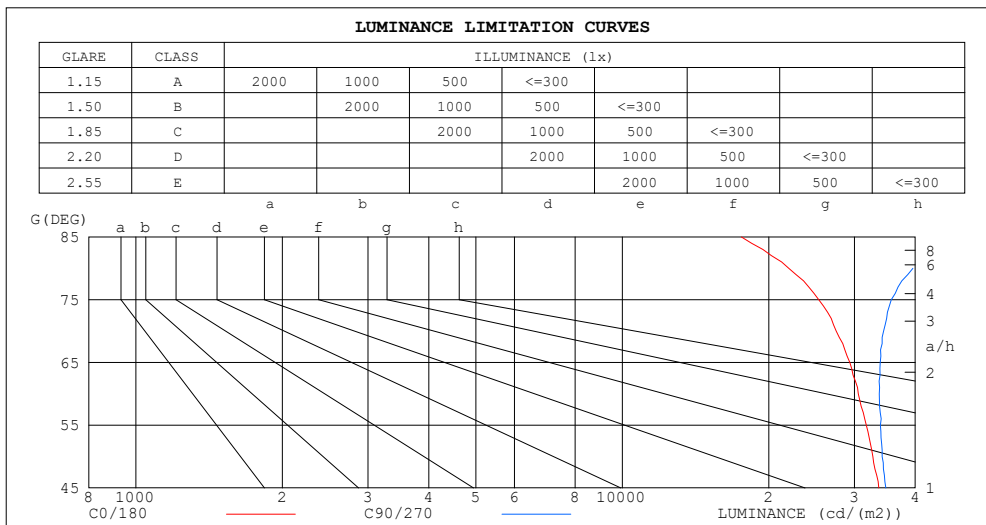
γ	C0	C90	C180	C270					γ	Φ zone	Φ total	%lum, lamp
10	75.62	75.88	75.20	74.70					0- 10	7.283	7.283	3.25,3.25
20	70.79	71.21	69.57	68.66					10- 20	20.61	27.90	12.5,12.5
30	63.12	63.47	61.33	60.47					20- 30	30.58	58.47	26.1,26.1
40	52.95	54.32	51.48	50.80					30- 40	35.90	94.37	42.1,42.2
50	42.07	43.98	40.41	40.80					40- 50	36.39	130.8	58.4,58.4
60	30.54	33.75	29.06	30.44					50- 60	32.56	163.3	72.9,72.9
70	18.83	23.55	17.33	20.27					60- 70	25.22	188.5	84.2,84.2
80	7.635	13.74	6.210	9.036					70- 80	15.38	203.9	91.1,91.1
90	0.4345	6.660	0.0861	5.998					80- 90	6.167	210.1	93.8,93.8
100	0.0862	6.059	0.0985	5.219					90-100	3.177	213.3	95.2,95.3
110	0.0862	5.813	0.1479	5.639					100-110	3.087	216.4	96.6,96.6
120	0.1476	5.468	0.1930	5.530					110-120	2.865	219.2	97.9,97.9
130	0.1702	4.914	0.2402	4.228					120-130	2.409	221.6	99,99
140	0.1846	3.976	0.2795	0.6040					130-140	1.352	223.0	99.6,99.6
150	0.2338	1.612	0.3081	0.3498					140-150	0.5871	223.6	99.8,99.9
160	0.2705	0.3447	0.3450	0.3302					150-160	0.2096	223.8	99.9,99.9
170	0.3276	0.3667	0.3756	0.3355					160-170	0.0939	223.9	100,100
180	0.3695	0.3695	0.3695	0.3695					170-180	0.0341	223.9	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:0.1129A P:2.7097W PF:1.0000 Freq:0Hz Lamp Flux:223.897x1 lm		
NAME: RIBDC-8-40K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.2	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	17578	54648
80	21984	39557
75	25342	35725
70	27530	34431
65	29348	33884
60	30543	33750
55	31727	33910
50	32727	34214
45	33660	34820

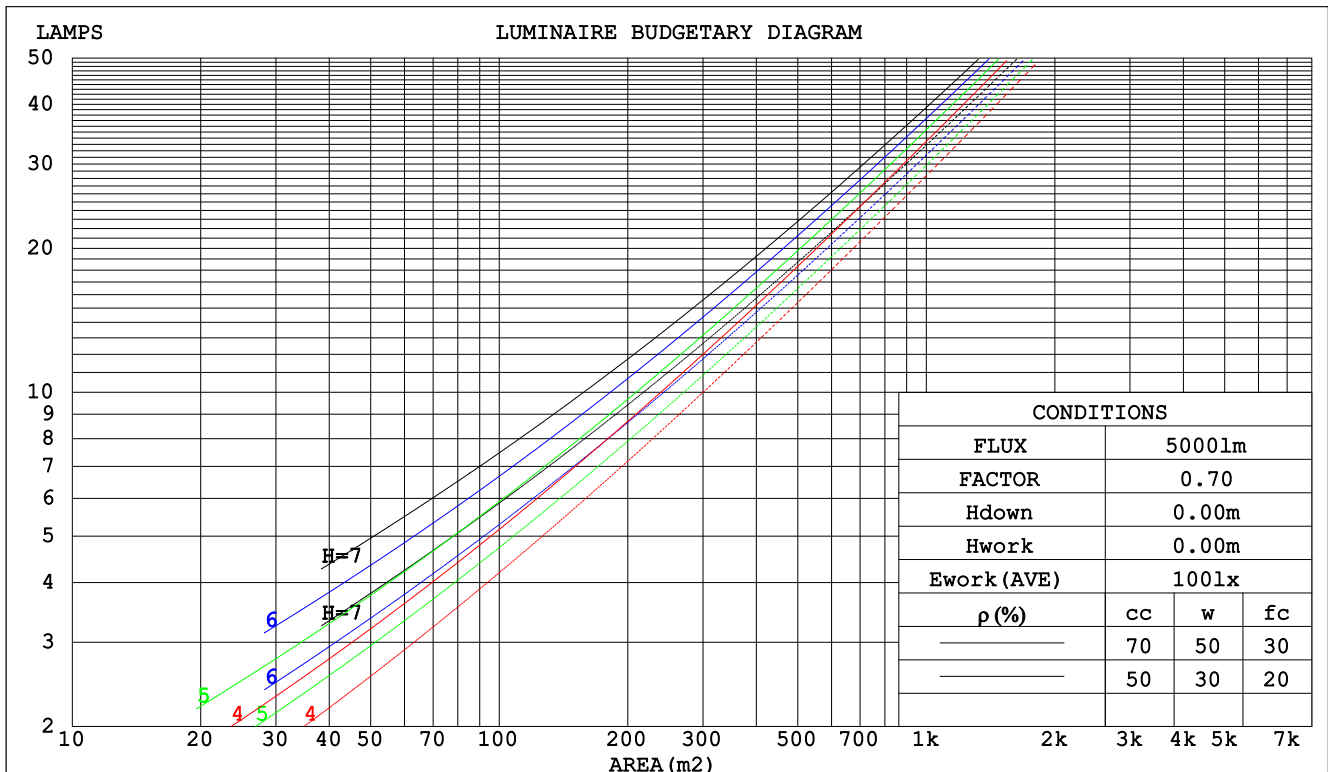
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JZ
Test Date:2023-08-08

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:0.1129A P:2.7097W PF:1.0000 Freq:0Hz Lamp Flux:223.897x1 lm		
NAME: RIBDC-8-40K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.2	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	1.18	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	.57	.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	.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	.32	.43	.36	.31	.42	.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	.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:0.1129A P:2.7097W PF:1.0000 Freq:0Hz		
Lamp Flux:223.897x1 lm		
NAME: RIBDC-8-40K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.2	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	.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	.248	.135	.041	.236	.129	.040	.225	.124	.038		
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	.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	.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	.139	.139	.139	.080	.080	.080	.025	.025	.025	
1.0	.228	.203	.181	.195	.175	.156	.134	.120	.108	.077	.070	.063	.025	.022	.020	
2.0	.220	.180	.146	.188	.155	.126	.129	.107	.088	.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	.205	.149	.107	.176	.129	.093	.121	.090	.065	.070	.053	.039	.022	.017	.013	
5.0	.197	.139	.096	.169	.120	.083	.117	.084	.059	.068	.049	.035	.022	.016	.012	
6.0	.190	.131	.088	.163	.113	.077	.113	.079	.054	.065	.047	.032	.021	.015	.011	
7.0	.183	.124	.082	.158	.107	.072	.109	.075	.051	.063	.044	.030	.020	.015	.010	
8.0	.177	.118	.078	.152	.102	.068	.105	.072	.048	.061	.042	.029	.020	.014	.009	
9.0	.171	.113	.074	.147	.098	.065	.102	.069	.046	.059	.041	.027	.019	.013	.009	
10.0	.165	.109	.072	.142	.095	.062	.099	.067	.044	.058	.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:0.1129A P:2.7097W PF:1.0000 Freq:0Hz Lamp Flux:223.897x1 lm										
NAME: RIBDC-8-40K-AM					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.: RAYHIL					SUR.: 0.01*0.2			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	29.7	31.1	30.1	31.5	31.8	30.0	31.5	30.4	31.8	32.1
3H	31.2	32.5	31.6	32.9	33.2	31.8	33.1	32.2	33.5	33.8
4H	31.8	33.0	32.2	33.4	33.8	32.6	33.9	33.0	34.3	34.6
6H	32.2	33.4	32.6	33.7	34.1	33.4	34.6	33.8	35.0	35.4
8H	32.3	33.4	32.7	33.8	34.2	33.8	34.9	34.2	35.3	35.8
12H	32.4	33.4	32.8	33.8	34.3	34.2	35.3	34.6	35.7	36.1
4H 2H	30.4	31.6	30.8	32.0	32.4	30.6	31.9	31.0	32.2	32.6
3H	32.0	33.1	32.5	33.5	34.0	32.6	33.7	33.0	34.1	34.5
4H	32.8	33.8	33.2	34.2	34.7	33.6	34.5	34.0	35.0	35.4
6H	33.3	34.2	33.8	34.7	35.2	34.5	35.4	35.0	35.8	36.3
8H	33.5	34.3	34.0	34.8	35.3	35.0	35.8	35.5	36.3	36.8
12H	33.6	34.3	34.1	34.8	35.4	35.4	36.2	36.0	36.7	37.2
8H 4H	33.1	34.0	33.6	34.4	35.0	33.8	34.6	34.3	35.1	35.6
6H	33.9	34.6	34.4	35.1	35.6	34.9	35.6	35.5	36.1	36.7
8H	34.1	34.8	34.7	35.3	35.9	35.5	36.1	36.1	36.7	37.3
12H	34.3	34.9	34.9	35.4	36.0	36.2	36.7	36.8	37.3	37.9
12H 4H	33.2	33.9	33.7	34.4	35.0	33.8	34.6	34.3	35.1	35.6
6H	34.0	34.6	34.5	35.1	35.7	35.0	35.6	35.6	36.2	36.7
8H	34.3	34.9	34.9	35.4	36.0	35.7	36.2	36.2	36.7	37.3
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, 223.9 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -5.2)
Area: 0.002 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:0.1129A P:2.7097W PF:1.0000 Freq:0Hz Lamp Flux:223.897x1 lm		
NAME: RIBDC-8-40K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.2	Shielding Angle:

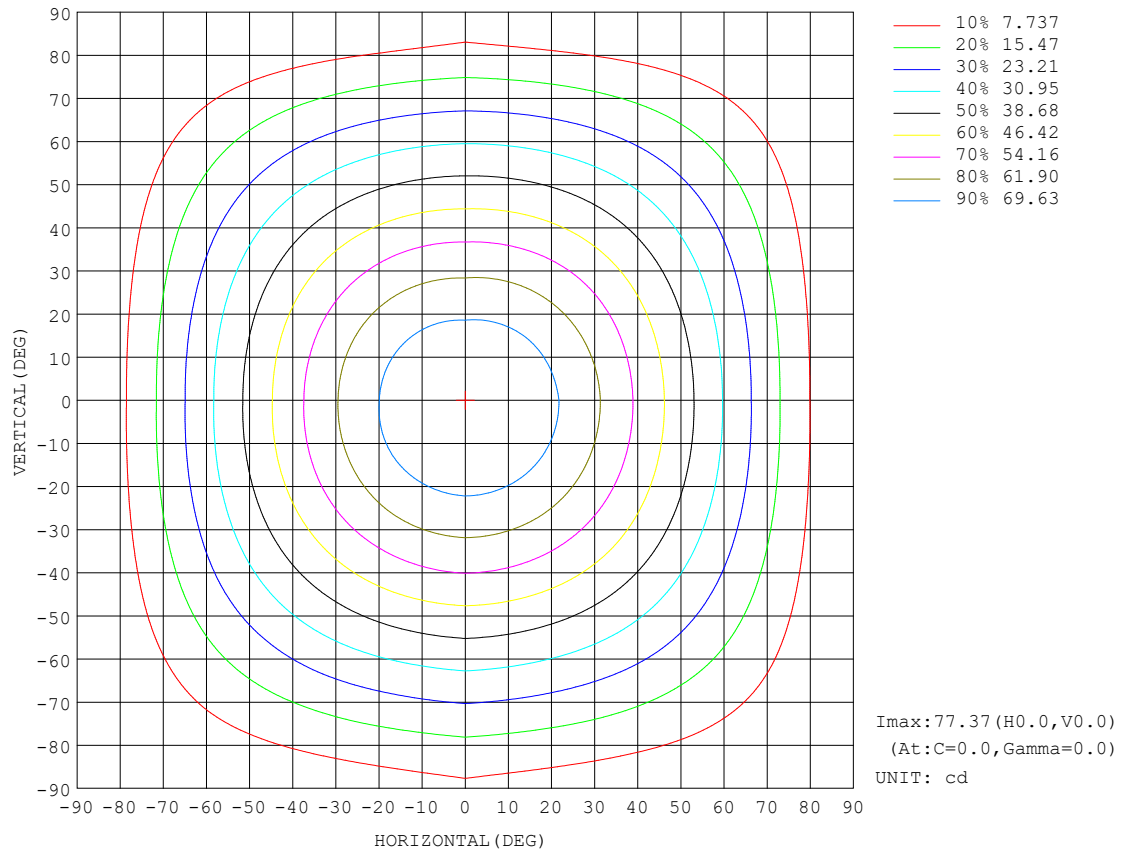
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) k(RI) x RCR = 5									
k = 0.60	56	44	37	55	44	37	54	43	37	31
0.80	66	54	47	64	53	46	62	52	46	39
1.00	74	63	55	72	62	55	70	63	54	46
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	91	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										

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:0.1129A P:2.7097W PF:1.0000 Freq:0Hz Lamp Flux:223.897x1 lm		
NAME: RIBDC-8-40K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.2	Shielding Angle:

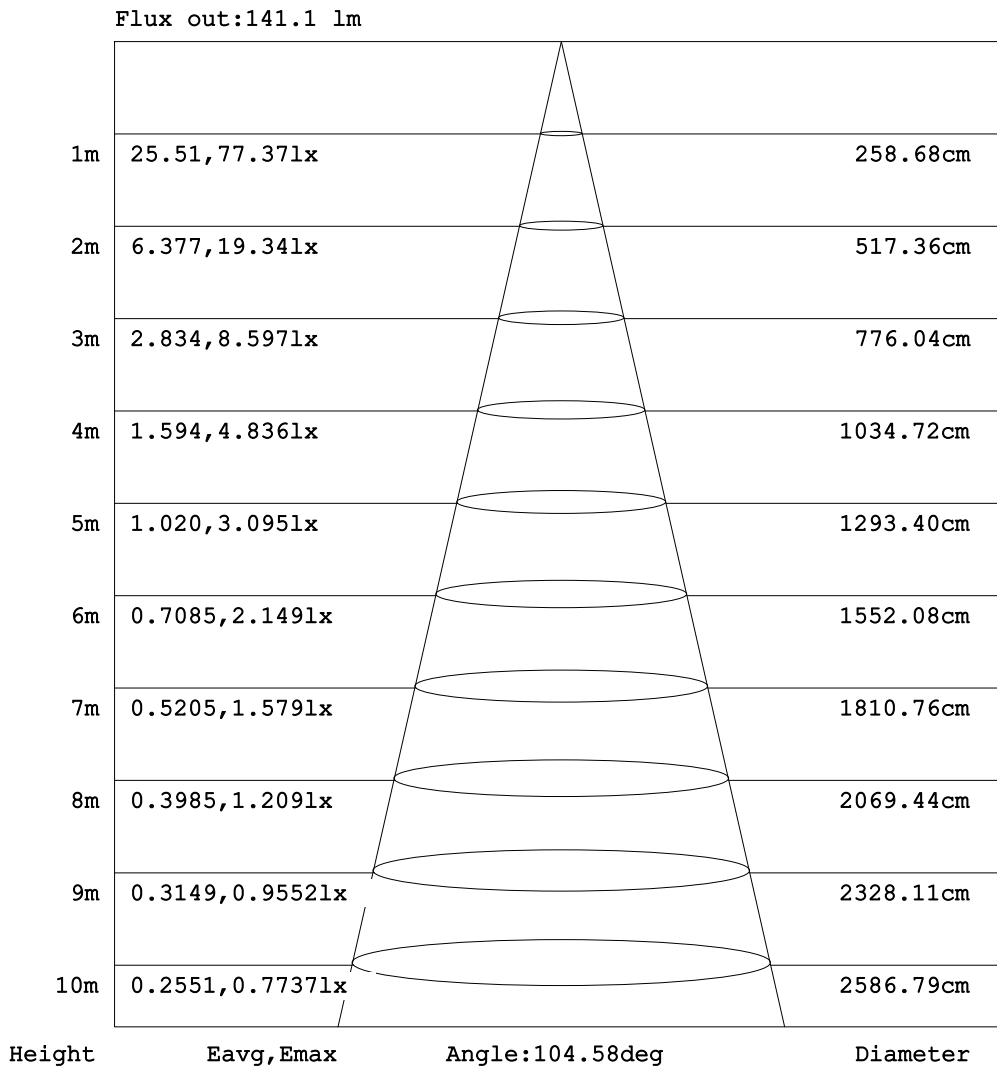


C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:JZ
Test Date:2023-08-08

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:0.1129A P:2.7097W PF:1.0000 Freq:0Hz Lamp Flux:223.897x1 lm		
NAME: RIBDC-8-40K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.2	Shielding Angle:



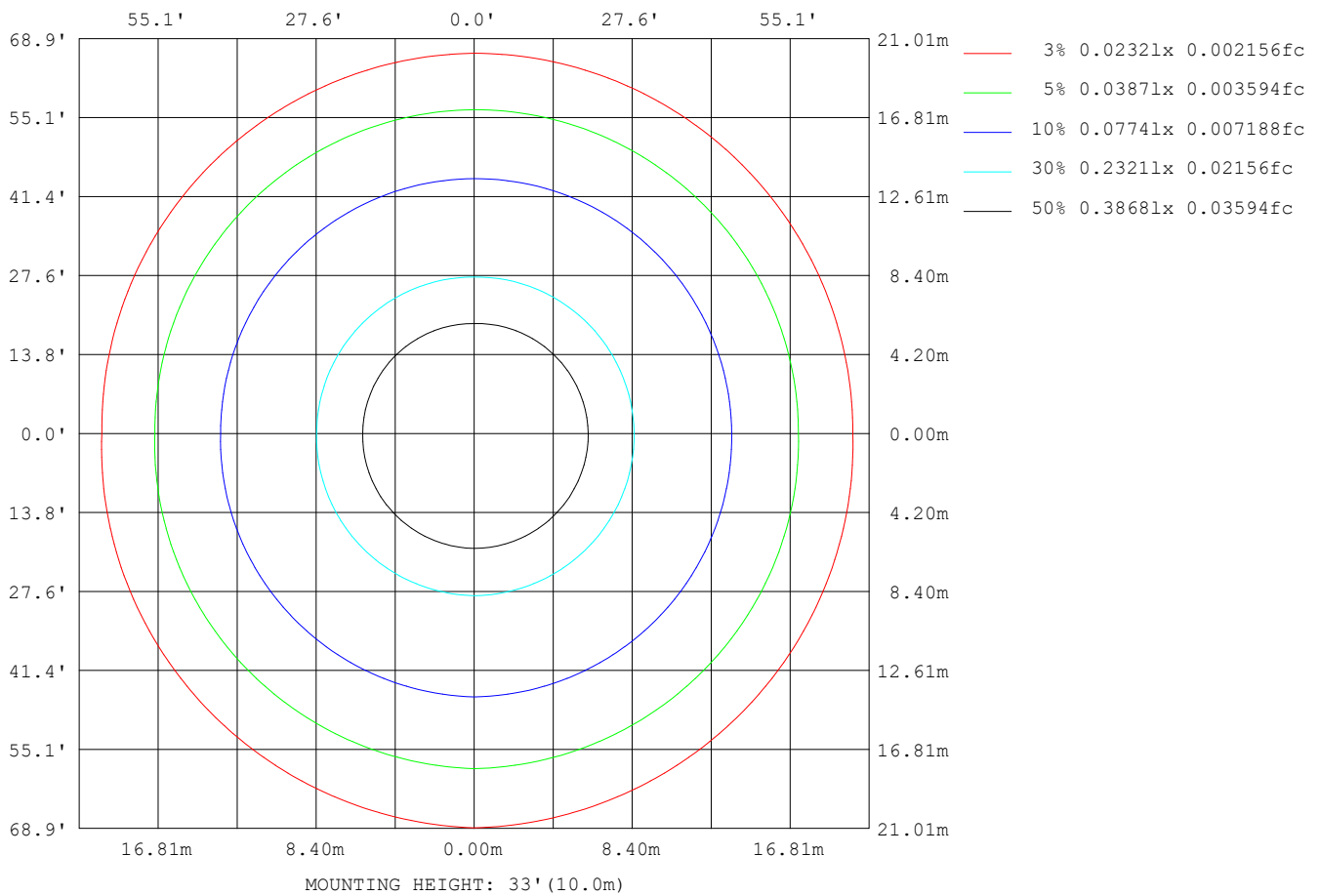
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

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:0.1129A P:2.7097W PF:1.0000 Freq:0Hz Lamp Flux:223.897x1 lm		
NAME: RIBDC-8-40K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.2	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:0.1129A P:2.7097W PF:1.0000 Freq:0Hz Lamp Flux:223.897x1 lm		
NAME: RIBDC-8-40K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.2	Shielding Angle:

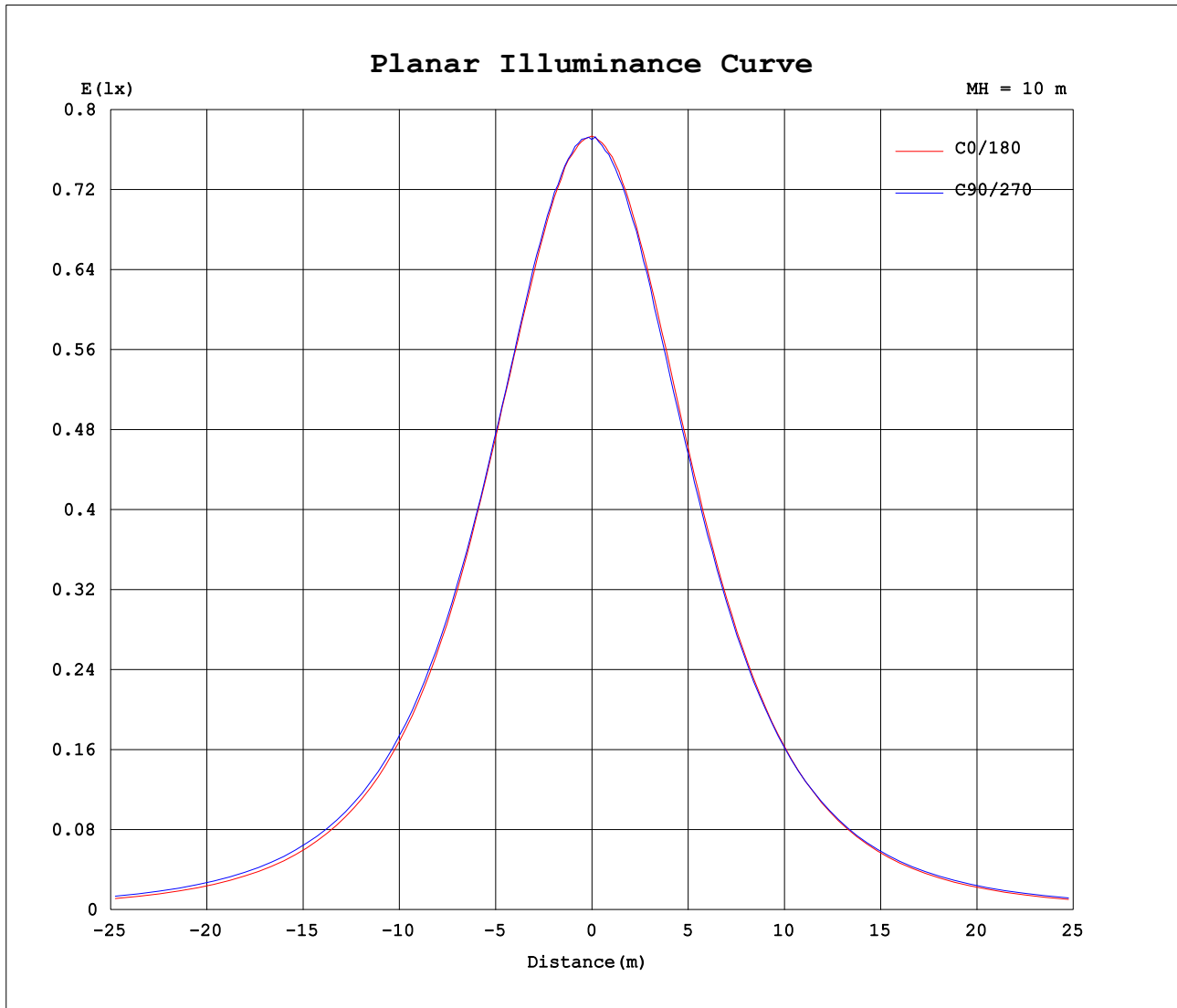
AvgL	cd/m2
L_0~180 (65) av	28350
L_0~180 (75) av	23844
L_0~180 (85) av	14525
L_90~270 (65) av	31883
L_90~270 (75) av	32647
L_90~270 (85) av	47050
L_45 (65) av	30496
L_45 (75) av	29252
L_45 (85) av	34662

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:0.1129A P:2.7097W PF:1.0000 Freq:0Hz Lamp Flux:223.897x1 lm		
NAME: RIBDC-8-40K-AM	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: RAYHIL	SUR.: 0.01*0.2	Shielding Angle:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	90	180	270														
0	77.4	77.0	77.4	77.0														
5	76.8	77.2	76.6	76.4														
10	75.6	75.9	75.2	74.7														
15	73.6	74.1	72.8	72.0														
20	70.8	71.2	69.6	68.7														
25	67.4	67.7	65.7	64.9														
30	63.1	63.5	61.3	60.5														
35	58.0	59.1	56.6	55.8														
40	52.9	54.3	51.5	50.8														
45	47.6	49.2	46.1	45.8														
50	42.1	44.0	40.4	40.8														
55	36.4	38.9	34.8	35.5														
60	30.5	33.7	29.1	30.4														
65	24.8	28.6	23.1	25.3														
70	18.8	23.6	17.3	20.3														
75	13.1	18.5	11.6	15.3														
80	7.63	13.7	6.21	9.04														
85	3.06	9.53	2.00	6.88														
90	0.43	6.66	0.09	6.00														
95	0.09	6.15	0.09	5.16														
100	0.09	6.06	0.10	5.22														
105	0.09	5.91	0.12	5.60														
110	0.09	5.81	0.15	5.64														
115	0.10	5.67	0.17	5.61														
120	0.15	5.47	0.19	5.53														
125	0.16	5.21	0.21	5.25														
130	0.17	4.91	0.24	4.23														
135	0.18	4.54	0.26	1.69														
140	0.18	3.98	0.28	0.60														
145	0.20	2.73	0.30	0.42														
150	0.23	1.61	0.31	0.35														
155	0.25	0.80	0.33	0.34														
160	0.27	0.34	0.34	0.33														
165	0.30	0.33	0.37	0.32														
170	0.33	0.37	0.38	0.34														
175	0.35	0.36	0.37	0.36														
180	0.37	0.37	0.37	0.37														

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%
Test Distance:8.700m [K=1.0000]
Remarks: