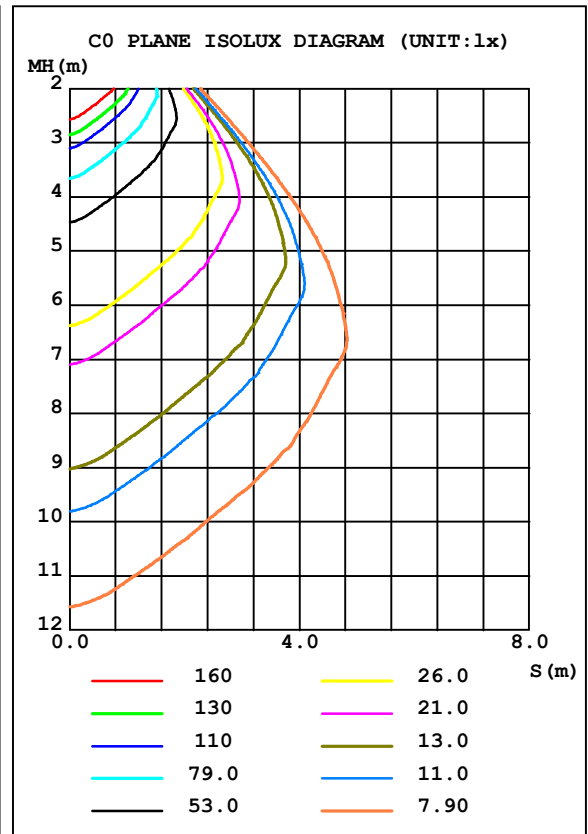
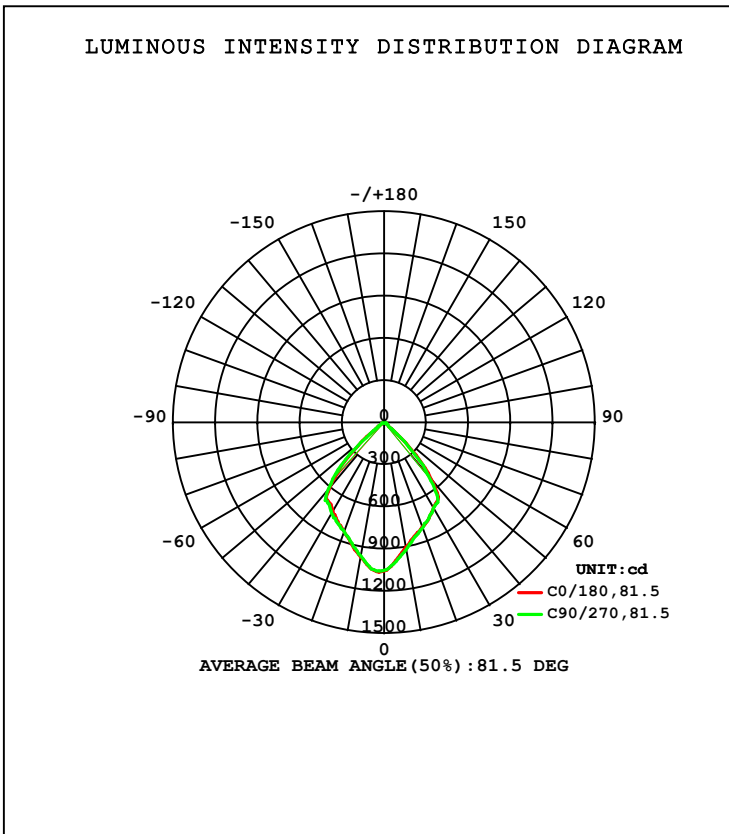


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.01V I:0.0747A P:14.801W PF:0.9003 Freq:50.00Hz Lamp Flux:1800x1 lm		
NAME: BE-D2106-15W	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: BEONE	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 95.54 lm/W			
MODEL	Bridgelux V13-B	I <sub>max</sub> (cd)	1067	S/MH (C0/180)	1.04
NOMINAL POWER (W)	15	LOR (%)	78.6	S/MH (C90/270)	1.07
RATED VOLTAGE (V)	100-240	TOTAL FLUX (lm)	1414.0	η UP, DN (C0-180)	0.0, 37.0
NOMINAL FLUX (lm)	1800	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.0, 41.6
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	220	η down (%)	78.6	CIBSE SHR MAX	1.25



C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature: 25.5DEG  
 Operators: 陈杰梁  
 Test Date: 2020-09-29

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.404.6  
 Humidity: 55%  
 Test Distance: 12.000m [K=1.0000]  
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

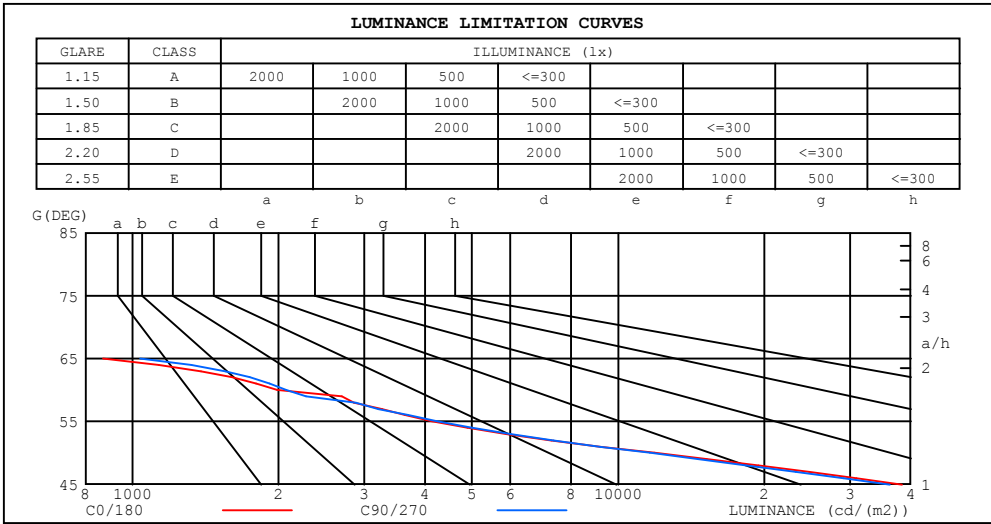
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	903.5	902.5	917.2	946.6	972.7	984.5	968.5	924.8	0- 10	94.47	94.47	6.68,5.25
20	795.2	789.3	802.6	814.9	830.5	839.3	830.1	808.0	10- 20	245.3	339.8	24,18.9
30	705.0	700.9	706.9	714.6	730.0	737.5	745.6	723.6	20- 30	354.1	693.8	49.1,38.5
40	522.9	477.8	493.8	558.9	597.5	620.9	618.1	567.0	30- 40	416.5	1110	78.5,61.7
50	76.25	65.66	74.58	112.9	161.7	195.5	171.5	104.8	40- 50	257.1	1367	96.7,76
60	9.916	10.28	10.36	13.81	18.60	21.07	17.24	11.21	50- 60	40.21	1408	99.5,78.2
70	0.1582	0.0791	0.1684	0.0889	1.233	2.216	1.066	0.1584	60- 70	6.116	1414	100,78.5
80	0.1088	0.0791	0.1187	0.0791	0.0890	0.1285	0.0791	0.1187	70- 80	0.1496	1414	100,78.6
90	0.0890	0.0791	0.0890	0.0791	0.0890	0.0989	0.0791	0.0890	80- 90	0.1011	1414	100,78.6
100									90-100			
110									100-110			
120									110-120			
130									120-130			
140									130-140			
150									140-150			
160									150-160			
170									160-170			
180									170-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:25.5DEG  
 Operators:陈杰梁  
 Test Date:2020-09-29

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.404.6  
 Humidity:55%  
 Test Distance:12.000m [K=1.0000]  
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:220.01V I:0.0747A P:14.801W PF:0.9003 Freq:50.00Hz Lamp Flux:1800x1 lm		
NAME: BE-D2106-15W	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: BEONE	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	125	102
80	63	68
75	50	50
70	46	49
65	871	1038
60	1983	2071
55	4134	4237
50	11862	11603
45	38338	36288

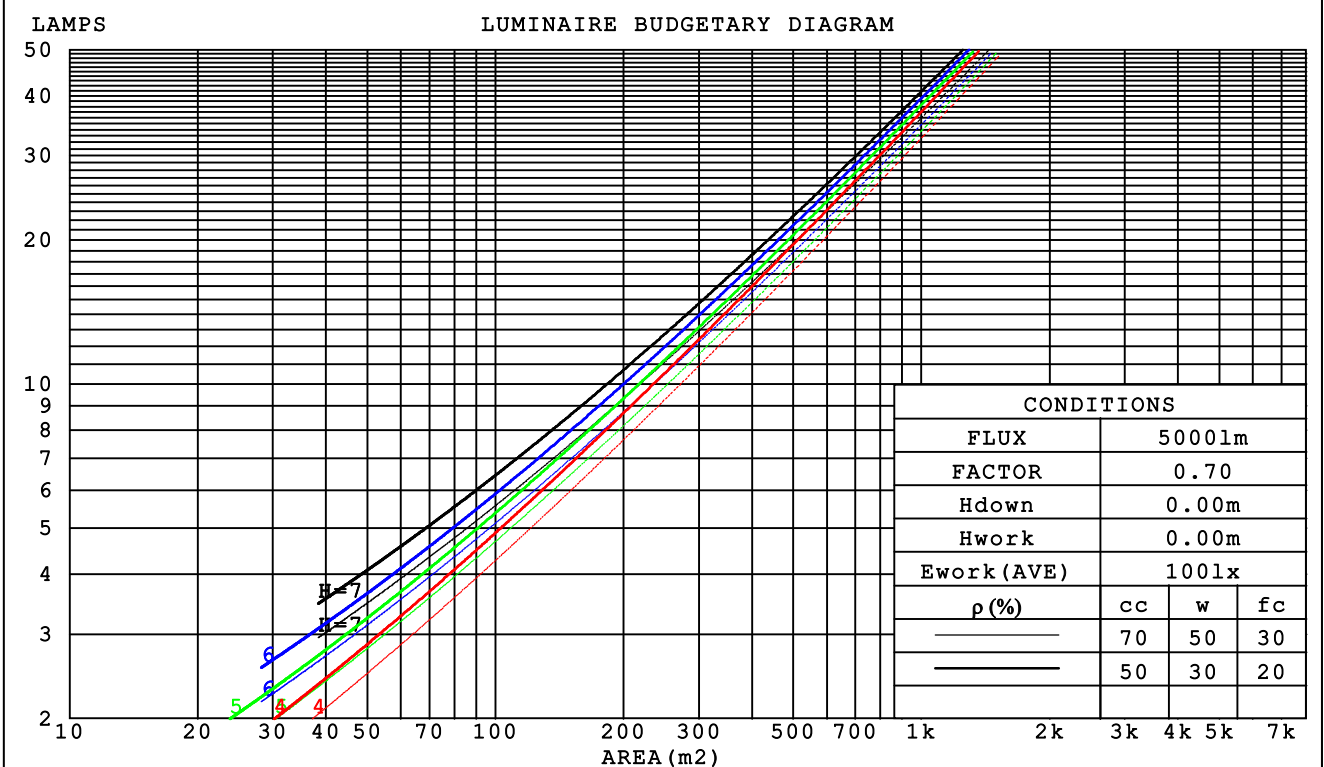
C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature: 25.5DEG  
 Operators: 陈杰梁  
 Test Date: 2020-09-29

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.404.6  
 Humidity: 55%  
 Test Distance: 12.000m [K=1.0000]  
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.01V I:0.0747A P:14.801W PF:0.9003 Freq:50.00Hz Lamp Flux:1800x1 lm		
NAME: BE-D2106-15W	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: BEONE	SUR.:	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	.94	.94	.94	.91	.91	.91	.87	.87	.87	.84	.84	.84	.80	.80	.80	.79
1.0	.86	.84	.82	.84	.82	.81	.81	.80	.78	.78	.77	.76	.76	.75	.74	.72
2.0	.79	.75	.72	.78	.74	.71	.75	.72	.70	.73	.70	.68	.70	.69	.67	.66
3.0	.72	.68	.64	.71	.67	.64	.69	.66	.63	.67	.64	.62	.65	.63	.61	.59
4.0	.67	.61	.58	.66	.61	.57	.64	.60	.57	.62	.59	.56	.61	.58	.55	.54
5.0	.61	.56	.52	.60	.55	.52	.59	.55	.51	.58	.54	.51	.56	.53	.50	.49
6.0	.56	.51	.47	.56	.51	.47	.55	.50	.47	.53	.49	.46	.52	.49	.46	.45
7.0	.52	.47	.43	.52	.46	.43	.51	.46	.43	.50	.45	.42	.49	.45	.42	.41
8.0	.48	.43	.39	.48	.43	.39	.47	.42	.39	.46	.42	.39	.45	.41	.39	.37
9.0	.45	.40	.36	.45	.39	.36	.44	.39	.36	.43	.39	.36	.42	.38	.36	.34
10.0	.42	.37	.33	.42	.37	.33	.41	.36	.33	.40	.36	.33	.40	.36	.33	.32



C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature: 25.5DEG  
 Operators: 陈杰梁  
 Test Date: 2020-09-29

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.404.6  
 Humidity: 55%  
 Test Distance: 12.000m [K=1.0000]  
 Remarks:

WEC AND CCEC

Test:U:220.01V I:0.0747A P:14.801W PF:0.9003 Freq:50.00Hz Lamp Flux:1800x1 lm		
NAME: BE-D2106-15W	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: BEONE	SUR.:	Shielding Angle:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients (WEC)									
0.0																
1.0	.157	.089	.028	.152	.086	.027	.142	.081	.026	.132	.076	.025	.124	.072	.023	
2.0	.153	.084	.026	.149	.082	.025	.140	.078	.024	.132	.074	.023	.125	.071	.022	
3.0	.147	.078	.024	.144	.077	.023	.136	.074	.022	.129	.071	.022	.123	.068	.021	
4.0	.141	.073	.022	.138	.072	.021	.131	.070	.021	.125	.067	.020	.120	.065	.020	
5.0	.135	.069	.020	.132	.068	.020	.126	.066	.019	.121	.064	.019	.116	.062	.019	
6.0	.129	.065	.018	.126	.064	.018	.121	.062	.018	.117	.061	.018	.112	.059	.018	
7.0	.123	.061	.017	.121	.060	.017	.116	.059	.017	.112	.057	.017	.108	.056	.017	
8.0	.118	.057	.016	.115	.057	.016	.111	.056	.016	.108	.055	.016	.104	.053	.016	
9.0	.112	.054	.015	.110	.054	.015	.107	.053	.015	.103	.052	.015	.100	.051	.015	
10.0	.107	.052	.014	.106	.051	.014	.102	.050	.014	.099	.049	.014	.096	.048	.014	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients (CCEC)									
0.0	.150	.150	.150	.128	.128	.128	.087	.087	.087	.050	.050	.050	.016	.016	.016	
1.0	.136	.123	.112	.116	.106	.097	.079	.073	.067	.046	.042	.039	.015	.014	.013	
2.0	.125	.104	.086	.107	.090	.075	.073	.062	.052	.042	.036	.030	.014	.012	.010	
3.0	.117	.089	.068	.100	.077	.059	.069	.054	.041	.040	.031	.024	.013	.010	.008	
4.0	.110	.078	.054	.094	.068	.047	.065	.047	.033	.037	.028	.020	.012	.009	.006	
5.0	.104	.069	.044	.089	.060	.038	.061	.042	.027	.036	.025	.016	.011	.008	.005	
6.0	.099	.062	.036	.085	.054	.032	.058	.038	.022	.034	.022	.013	.011	.007	.004	
7.0	.094	.057	.031	.081	.049	.027	.056	.034	.019	.032	.020	.011	.010	.007	.004	
8.0	.090	.052	.026	.077	.045	.023	.053	.032	.016	.031	.019	.010	.010	.006	.003	
9.0	.086	.048	.023	.074	.042	.020	.051	.029	.014	.030	.017	.008	.010	.006	.003	
10.0	.082	.045	.020	.071	.039	.017	.049	.027	.012	.029	.016	.007	.009	.005	.002	

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:25.5DEG  
 Operators:陈杰梁  
 Test Date:2020-09-29

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.404.6  
 Humidity:55%  
 Test Distance:12.000m [K=1.0000]  
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:220.01V I:0.0747A P:14.801W PF:0.9003 Freq:50.00Hz Lamp Flux:1800x1 lm										
NAME: BE-D2106-15W					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.: BEONE					SUR.:			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	19.1	20.3	19.4	20.5	20.6	19.0	20.2	19.3	20.3	20.5
3H	19.0	20.0	19.2	20.2	20.4	18.9	19.9	19.1	20.1	20.3
4H	18.9	19.8	19.2	20.1	20.3	18.8	19.7	19.1	20.0	20.2
6H	18.8	19.7	19.1	19.9	20.2	18.7	19.6	19.0	19.8	20.1
8H	18.7	19.6	19.0	19.9	20.1	18.6	19.5	18.9	19.8	20.0
12H	18.7	19.5	19.0	19.8	20.1	18.6	19.4	18.9	19.7	20.0
4H 2H	18.9	19.8	19.2	20.1	20.3	18.8	19.7	19.1	20.0	20.2
3H	18.7	19.5	19.0	19.8	20.1	18.6	19.4	18.9	19.7	20.0
4H	18.6	19.3	19.0	19.6	20.0	18.5	19.2	18.8	19.5	19.9
6H	18.5	19.2	18.9	19.5	19.8	18.4	19.1	18.8	19.4	19.7
8H	18.5	19.1	18.9	19.4	19.8	18.4	19.0	18.8	19.3	19.7
12H	18.4	19.0	18.8	19.3	19.7	18.3	18.9	18.7	19.2	19.6
8H 4H	18.5	19.1	18.9	19.4	19.8	18.4	19.0	18.8	19.3	19.7
6H	18.4	18.9	18.8	19.2	19.7	18.3	18.7	18.7	19.1	19.6
8H	18.3	18.7	18.8	19.2	19.6	18.2	18.6	18.7	19.1	19.5
12H	18.3	18.6	18.7	19.1	19.5	18.2	18.5	18.6	19.0	19.4
12H 4H	18.4	19.0	18.8	19.3	19.7	18.3	18.9	18.7	19.2	19.6
6H	18.3	18.7	18.8	19.2	19.6	18.2	18.6	18.7	19.1	19.5
8H	18.3	18.6	18.7	19.1	19.5	18.2	18.5	18.6	19.0	19.4
Variations with the observer position at spacings:										
S = 1.0H	+ 2.5 / -14.9					+ 2.5 / -14.9				
1.5H	+ 4.4 / -12.3					+ 4.4 / -12.1				
2.0H	+ 8.0 / -13.1					+ 7.9 / -12.5				

CIE Pub.117, 1800 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 2.0)

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:25.5DEG  
 Operators:陈杰梁  
 Test Date:2020-09-29

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.404.6  
 Humidity:55%  
 Test Distance:12.000m [K=1.0000]  
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.01V I:0.0747A P:14.801W PF:0.9003 Freq:50.00Hz Lamp Flux:1800x1 lm		
NAME: BE-D2106-15W	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: BEONE	SUR.:	Shielding Angle:

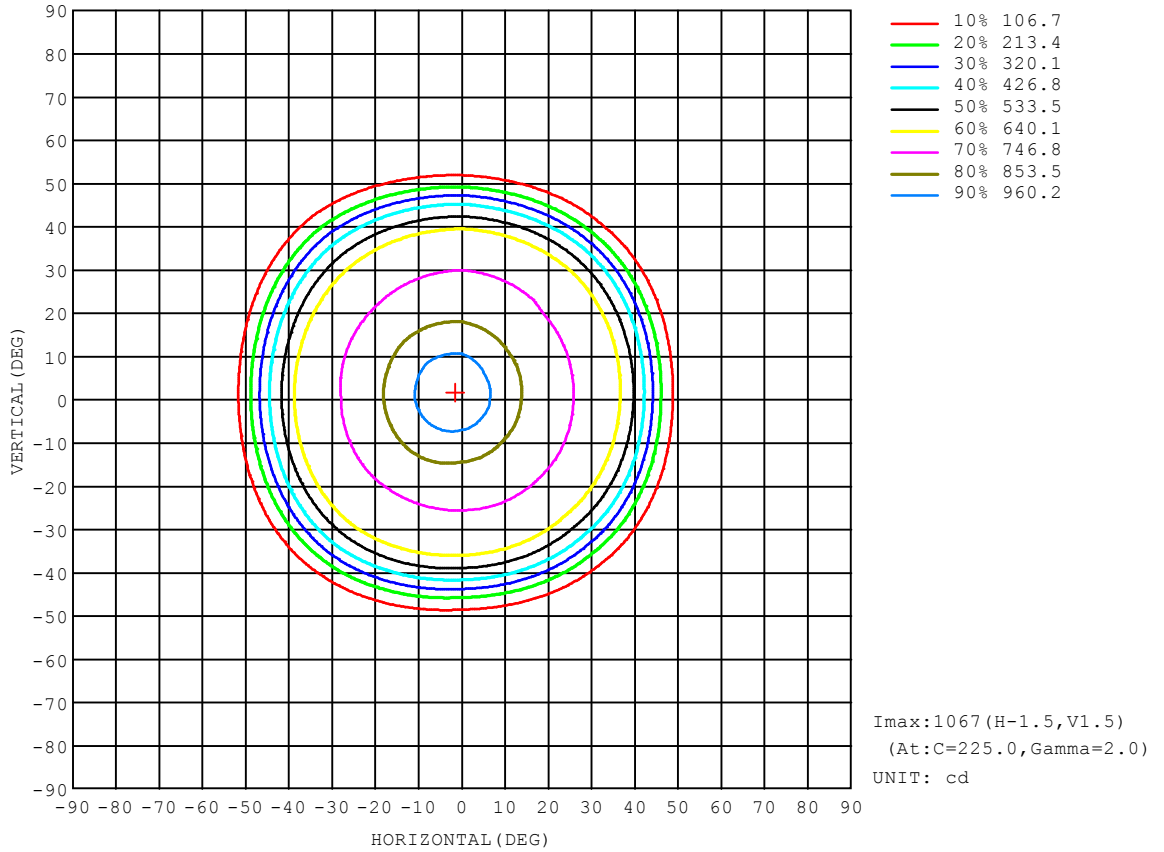
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	61	55	51	61	55	51	60	54	51	47
0.80	68	62	59	68	62	59	67	62	58	55
1.00	73	68	64	73	68	64	71	68	64	60
1.25	78	73	69	77	72	69	75	71	68	65
1.50	80	76	73	79	75	72	77	74	71	67
2.00	83	79	77	82	79	76	80	77	75	70
2.50	85	81	79	84	80	78	81	78	76	71
3.00	86	83	81	85	82	80	82	80	78	73
4.00	88	86	83	87	84	82	84	82	80	74
5.00	89	87	85	88	86	84	84	83	81	75
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:25.5DEG  
 Operators:陈杰梁  
 Test Date:2020-09-29

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.404.6  
 Humidity:55%  
 Test Distance:12.000m [K=1.0000]  
 Remarks:

ISOCANDELA DIAGRAM

Test:U:220.01V I:0.0747A P:14.801W PF:0.9003 Freq:50.00Hz Lamp Flux:1800x1 lm		
NAME: BE-D2106-15W	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: BEONE	SUR.:	Shielding Angle:



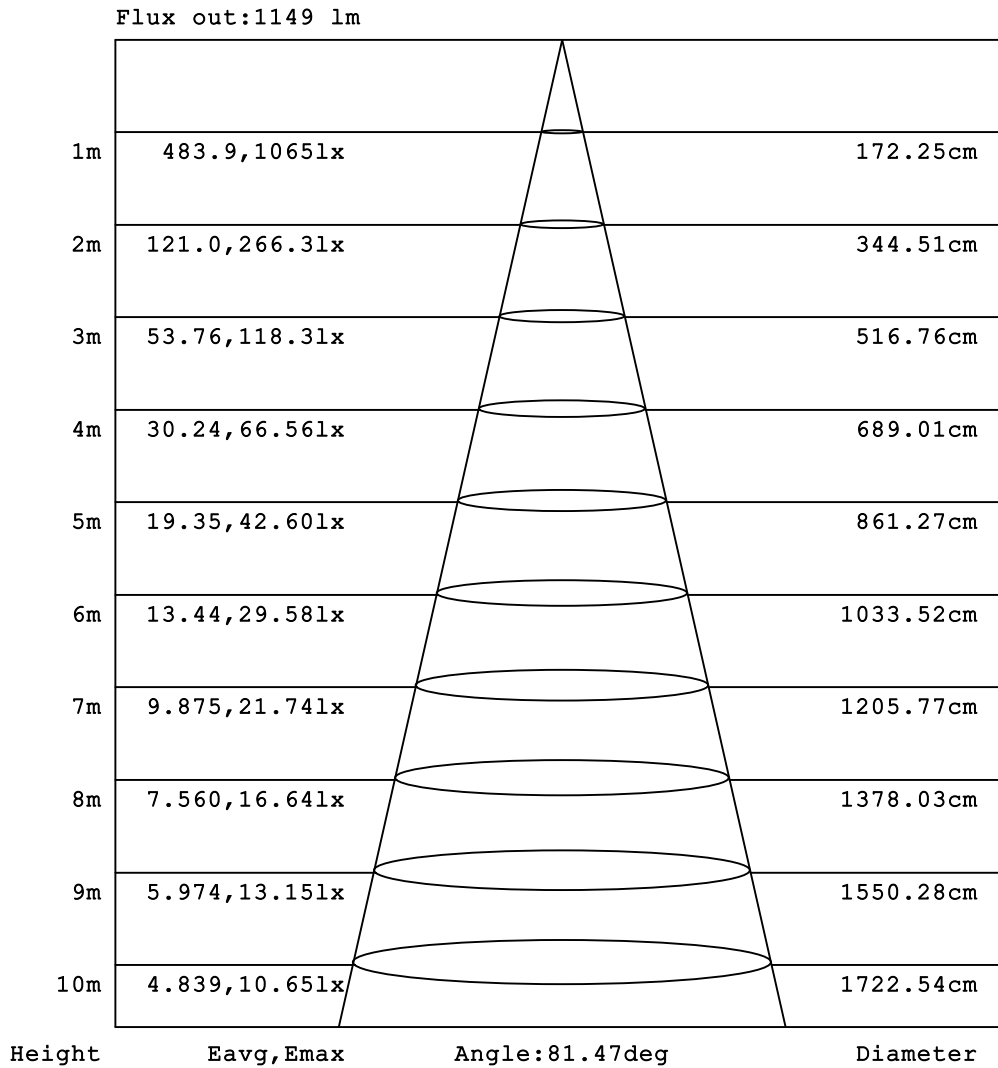
C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:25.5DEG  
 Operators:陈杰梁  
 Test Date:2020-09-29

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.404.6  
 Humidity:55%  
 Test Distance:12.000m [K=1.0000]  
 Remarks:



AAI Figure

Test:U:220.01V I:0.0747A P:14.801W PF:0.9003 Freq:50.00Hz Lamp Flux:1800x1 lm		
NAME: BE-D2106-15W	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: BEONE	SUR.:	Shielding Angle:



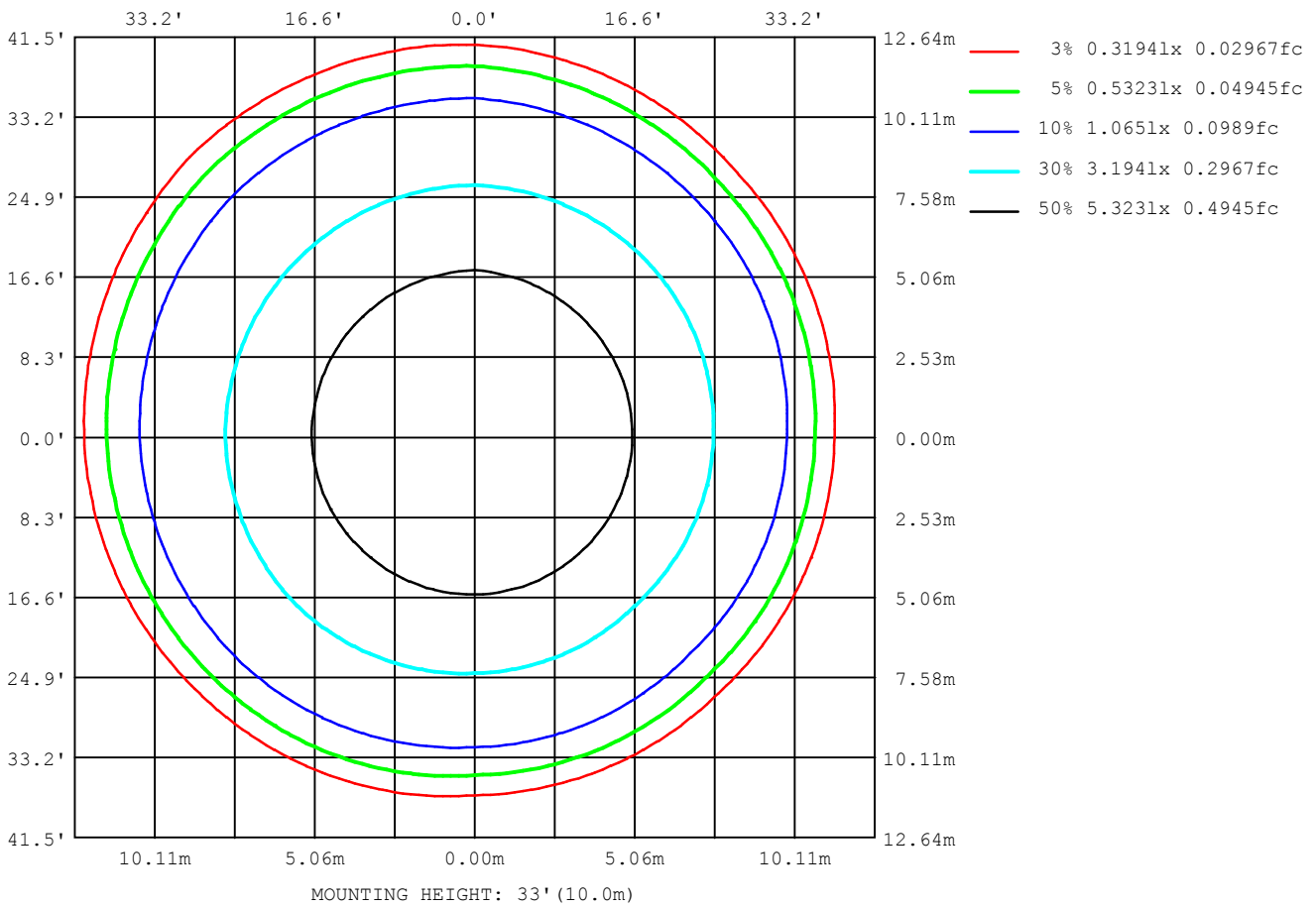
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature: 25.5DEG  
 Operators: 陈杰梁  
 Test Date: 2020-09-29

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.404.6  
 Humidity: 55%  
 Test Distance: 12.000m [K=1.0000]  
 Remarks:

ISOLUX DIAGRAM

Test:U:220.01V I:0.0747A P:14.801W PF:0.9003 Freq:50.00Hz Lamp Flux:1800x1 lm		
NAME: BE-D2106-15W	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: BEONE	SUR.:	Shielding Angle:



C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature: 25.5DEG  
 Operators: 陈杰梁  
 Test Date: 2020-09-29

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.404.6  
 Humidity: 55%  
 Test Distance: 12.000m [K=1.0000]  
 Remarks:

## LED Avg.L Report

Test:U:220.01V I:0.0747A P:14.801W PF:0.9003 Freq:50.00Hz Lamp Flux:1800x1 lm		
NAME: BE-D2106-15W	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: BEONE	SUR.:	Shielding Angle:

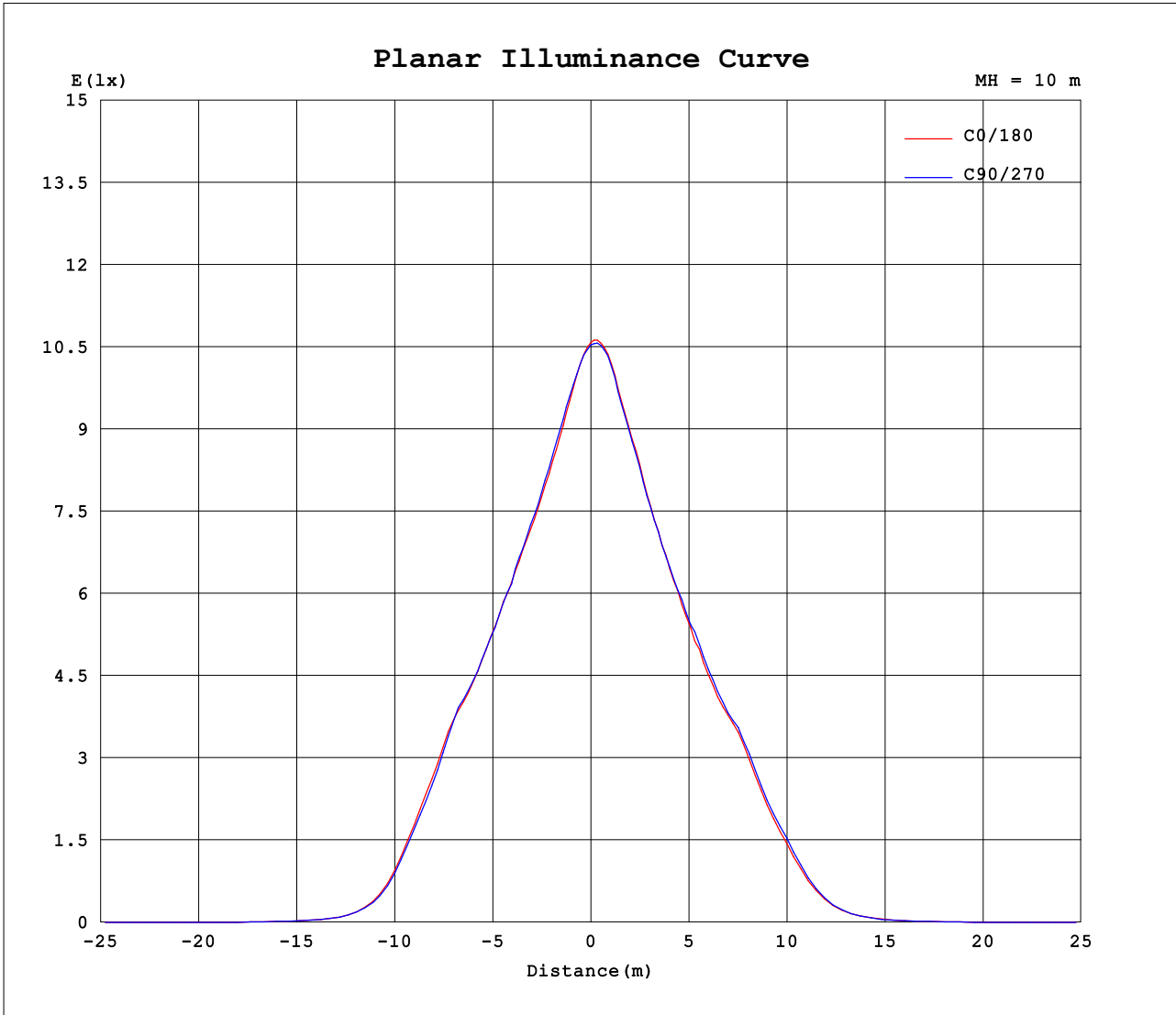
AvgL	cd/m2
L_0~180 (65) av	1428
L_0~180 (75) av	42
L_0~180 (85) av	113
L_90~270 (65) av	1402
L_90~270 (75) av	40
L_90~270 (85) av	97
L_45 (65) av	1420
L_45 (75) av	42
L_45 (85) av	105

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:25.5DEG  
 Operators:陈杰梁  
 Test Date:2020-09-29

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.404.6  
 Humidity:55%  
 Test Distance:12.000m [K=1.0000]  
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature: 25.5DEG  
 Operators: 陈杰梁  
 Test Date: 2020-09-29

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.404.6  
 Humidity: 55%  
 Test Distance: 12.000m [K=1.0000]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.01V I:0.0747A P:14.801W PF:0.9003 Freq:50.00Hz Lamp Flux:1800x1 lm		
NAME: BE-D2106-15W	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: BEONE	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	45	90	135	180	225	270	315											
0	1058	1057	1054	1053	1058	1057	1054	1053											
5	987	981	992	1020	1048	1058	1046	1004											
10	903	902	917	947	973	984	968	925											
15	839	836	847	874	897	909	893	857											
20	795	789	803	815	830	839	830	808											
25	755	750	756	766	779	787	792	770											
30	705	701	707	715	730	738	746	724											
35	673	652	669	685	691	688	699	698											
40	523	478	494	559	597	621	618	567											
45	271	229	257	350	406	438	434	349											
50	76.2	65.7	74.6	113	162	196	172	105											
55	23.7	23.0	24.3	33.7	46.8	56.2	46.0	28.6											
60	9.92	10.3	10.4	13.8	18.6	21.1	17.2	11.2											
65	3.68	3.49	4.39	6.34	8.39	9.59	7.46	4.59											
70	0.16	0.08	0.17	0.09	1.23	2.22	1.07	0.16											
75	0.13	0.08	0.13	0.08	0.09	0.15	0.08	0.13											
80	0.11	0.08	0.12	0.08	0.09	0.13	0.08	0.12											
85	0.11	0.08	0.09	0.08	0.09	0.11	0.08	0.10											
90	0.09	0.08	0.09	0.08	0.09	0.10	0.08	0.09											

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