



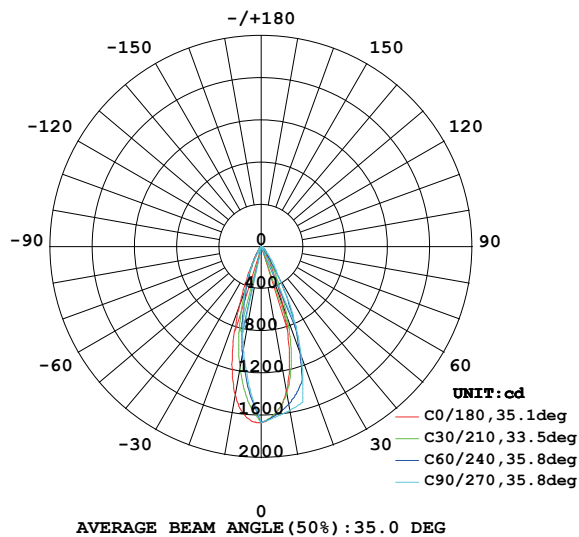
/ BOMBU (07.AA86._0_.__)

LUMINAIRE PHOTOMETRIC TEST REPORT

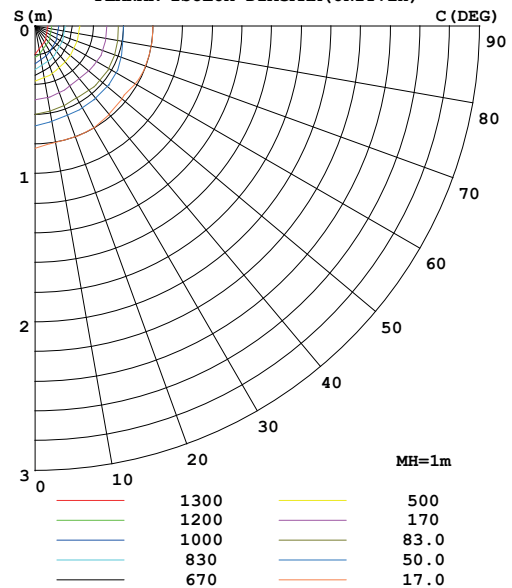
Test:U:221.1V I:0.0460A P:9.870W PF:0.9530 Lamp Flux:945x1 lm		
NAME: BOMBU	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:230728001
MFR.:	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff:68.64 lm/W			
MODEL	TEEN	I _{max} (cd)	1670	S/MH (C0/180)	0.56
NOMINAL POWER (W)	9	LOR (%)	71.7	S/MH (C90/270)	0.41
RATED VOLTAGE (V)	222	TOTAL FLUX (lm)	677.53	h UP, DN (C0-180)	0.0, 26.8
NOMINAL FLUX (lm)	945	CIE CLASS	DIRECT	h UP, DN (C180-360)	0.0, 44.9
LAMPS INSIDE	1	h up (%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE (V)	221.1	h down (%)	71.7	CIBSE SHR MAX	0.60

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



PLANAR ISOLUX DIAGRAM (UNIT: lx)



C Range:0-360DEG
C Interval:5.0DEG
Test Speed:HIGH
Temperature:30DEG
Operators:
Test Date:2023-12-11

g Range:0-90DEG
g Interval:0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.275
Humidity:65.0%
Test Distance:5.835m [K=1.0000]
Remarks:



/ BOMBU (07.AA86._0_.__)

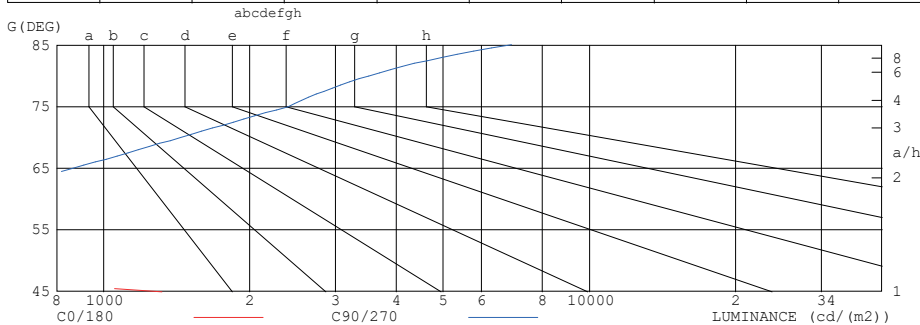
ZONAL FLUX DIAGRAM
AND LUMINANCE LIMITATION CURVES

ZONAL FLUX DIAGRAM:

g	C0	C45	C90	C135	C180	C225	C270	C315g	F	zone°	total	% lm, lamp
5	1625	1409	1326	1386	1591	1594	1622	1614	0- 5	37.56	37.56	5.54,3.97
10	1430	1090	984.5	1063	1394	1462	1575	1480	5-10	100.2	137.7	20.3,14.6
15	1071	735.6	642.6	714.9	1044	1251	1529	1260	10-15	136.7	274.4	40.5,29
20	634.3	400.4	455.1	383.9	618.8	962.5	1124	970.0	15-20	138.8	413.2	61.43,7
25	303.5	227.4	267.6	215.1	298.9	563.6	719.3	572.4	20-25	109.9	523.1	77.2,55.4
30	145.0	123.6	80.14	116.3	145.6	281.2	314.5	287.7	25-30	70.68	593.8	87.6,62.8
35	73.69	58.14	53.82	55.22	72.98	129.5	219.2	131.6	30-35	38.64	632.5	93.3,66.9
40	32.58	19.22	27.50	19.98	34.59	59.76	123.9	58.73	35-40	22.87	655.3	96.7,69.3
45	9.306	9.332	1.186	9.625	11.77	30.09	28.56	27.98	40-45	11.37	666.7	98.4,70.6
50	0.0946	2.801	1.583	3.273	0.4191	10.28	19.04	8.907	45-50	3.494	670.2	98.9,70.9
55	0.0353	0.2947	1.981	0.3024	0.0141	0.0375	9.525	0.0131	50-55	1.165	671.4	99.1,71
60	0.0282	1.031	2.379	1.007	0.0071	0.0217	0.0071	0.0074	55-60	0.5382	671.9	99.2,71.1
65	0.0188	1.807	3.653	1.748	0.0071	0.0064	0.0047	0.0061	60-65	0.3517	672.3	99.2,71.1
70	0.0165	2.940	4.926	2.916	0.0071	0	0.0024	0.0058	65-70	0.5465	672.8	99.3,71.2
75	0.0141	4.543	6.200	4.654	0.0071	0	0	0.0027	70-75	0.8232	673.6	99.4,71.3
80	0.0118	5.932	6.109	6.195	0.0071	0	0	0	75-80	1.117	674.7	99.6,71.4
85	0.0094	5.759	6.018	6.128	0.0071	0	0	0	80-85	1.324	676.1	99.8,71.5
90	0.0047	5.593	5.927	6.061	0.2752	0	0	0	85-90	1.462	677.5	100,71.7
95									90-95			
100									95-100			
105									100-105			
110									105-110			
115									110-115			
120									115-120			
125									120-125			
130									125-130			
135									130-135			
140									135-140			
145									140-145			
150									145-150			
155									150-155			
160									155-160			
165									160-165			
170									165-170			
175									170-175			
180									175-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

LUMINANCE LIMITATION CURVES

GLARE	CLASS	ILLUMINANCE (lx)							
1.15A	A	2000	1000	500	<=300				
1.50	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.20	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	11	6905
80	7	3518
75	5	2395
70	5	1440
65	4	864
60	6	476
55	6	345
50	15	246
45	1316	168

C Range:0-360DEG
C Interval:5.0DEG
Test Speed:HIGH
Temperature:30DEG
Operators:
Test Date:2023-12-11

g Range:0-90DEG
g Interval:0.5DEG
Test System :EVERFINE GO-2000B_V1 SYSTEM V2.0.275
Humidity:65.0%
Test Distance: 5.835m [K=1.0000]
Remarks:

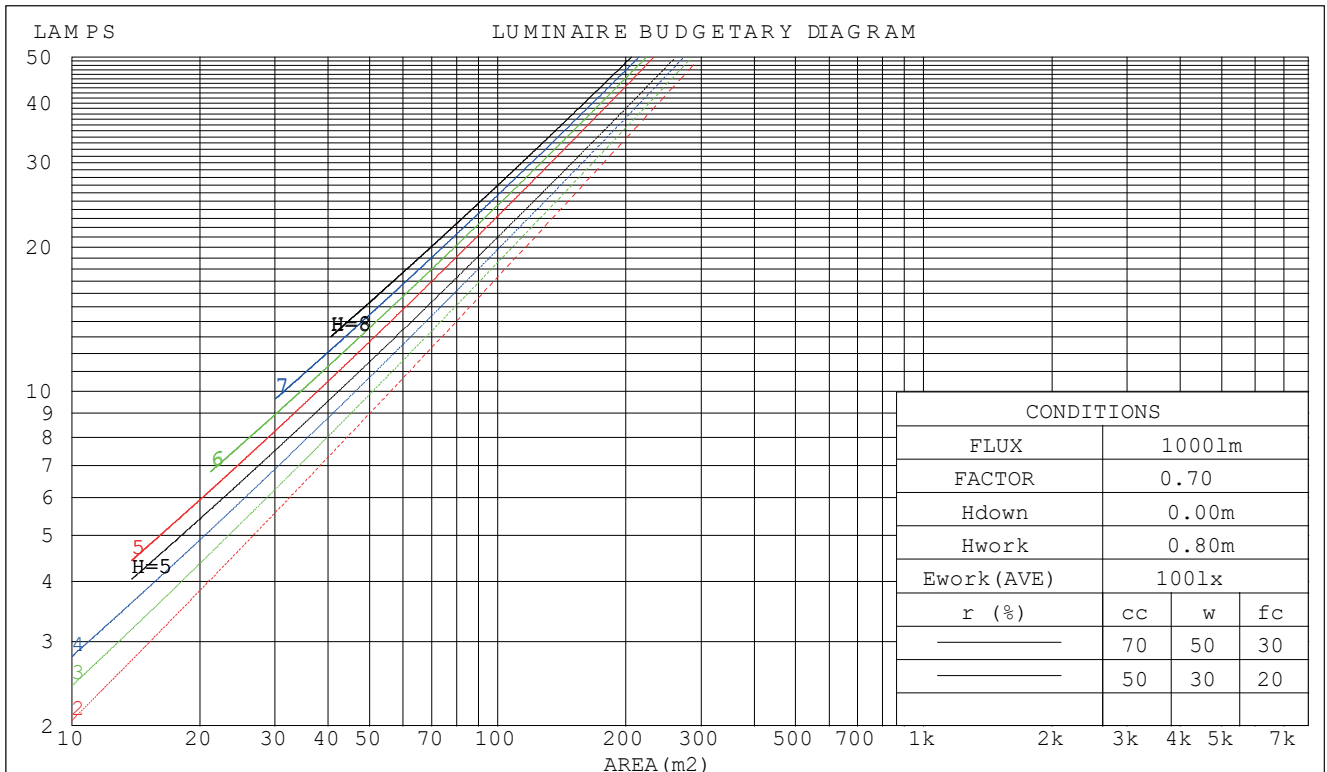


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CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:221.1V I:0.0460A P:9.870W PF:0.9530 Lamp Flux:945x1 lm		
NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:230728001
MFR.:	SUR.:	PROTECTION ANGLE:

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
rfc	20%			20%			20%			20%			20%			0
RCC Room Cavity Ratio			Coefficients of Utilization (CU)													
0.0	.85	.85	.85	.83	.83	.83	.80	.80	.80	.76	.76	.76	.73	.73	.73	.72
1.0	.80	.78	.77	.79	.77	.76	.76	.75	.73	.73	.72	.71	.71	.70	.69	.68
2.0	.75	.73	.71	.74	.72	.70	.72	.70	.69	.70	.68	.67	.68	.67	.66	.65
3.0	.71	.68	.66	.70	.68	.65	.69	.66	.64	.67	.65	.63	.65	.64	.62	.61
4.0	.68	.64	.62	.67	.64	.62	.66	.63	.61	.64	.62	.60	.63	.61	.59	.59
5.0	.65	.61	.58	.64	.61	.58	.63	.60	.58	.62	.59	.57	.61	.58	.57	.56
6.0	.62	.58	.55	.61	.58	.55	.60	.57	.55	.59	.57	.55	.58	.56	.54	.53
7.0	.59	.55	.53	.58	.55	.53	.58	.55	.52	.57	.54	.52	.56	.54	.52	.51
8.0	.56	.53	.50	.56	.53	.50	.55	.52	.50	.55	.52	.50	.54	.51	.50	.49
9.0	.54	.51	.48	.54	.50	.48	.53	.50	.48	.53	.50	.48	.52	.49	.48	.47
10.0	.52	.48	.46	.52	.48	.46	.51	.48	.46	.51	.48	.46	.50	.48	.46	.45



C Range:0-360DEG
C Interval:5.0DEG
Test Speed:HIGH
Temperature:30DEG
Operators:
Test Date:2023-12-11

g Range:0-90DEG
g Interval:0.5DEG
Test System :EVERFINE GO-2000B_V1 SYSTEM V2.0.275
Humidity:65.0%
Test Distance: 5.835m [K=1.0000]
Remarks:



WEC AND CCEC

Test:U:221.1V I:0.0460A P:9.870W PF:0.9530 Lamp Flux:945x1 lm		
NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:230728001
MFR.:	SUR.:	PROTECTION ANGLE:

rcc	80%	70%	50%	30%	10%	0
rw	50%30%10%	50%30%10%	50%30%10%	50%30%10%	50%30%10%	0
rfc	20%	20%	20%	20%	20%	0
RCRCR: Room Cavity Ratio Wall Exitance Coefficients(WEC)						
0.0						
1.0	.115 .065 .021	.110 .063 .020	.101 .058 .019	.093 .054 .017	.085 .049 .016	
2.0	.107 .059 .018	.103 .057 .017	.095 .053 .016	.089 .050 .016	.082 .047 .015	
3.0	.100 .053 .016	.097 .052 .016	.091 .049 .015	.085 .046 .014	.079 .044 .014	
4.0	.095 .049 .014	.092 .048 .014	.086 .046 .014	.081 .044 .013	.077 .042 .013	
5.0	.090 .046 .013	.087 .045 .013	.083 .043 .013	.078 .041 .012	.074 .040 .012	
6.0	.085 .043 .012	.083 .042 .012	.079 .041 .012	.075 .039 .011	.072 .038 .011	
7.0	.081 .040 .011	.079 .040 .011	.076 .038 .011	.073 .037 .011	.069 .036 .011	
8.0	.078 .038 .011	.076 .037 .011	.073 .036 .010	.070 .035 .010	.067 .035 .010	
9.0	.074 .036 .010	.073 .036 .010	.070 .035 .010	.068 .034 .010	.065 .033 .010	
10.0	.071 .034 .010	.070 .034 .009	.068 .033 .009	.065 .032 .009	.063 .032 .009	

rcc	80%	70%	50%	30%	10%	0
rw	50%30%10%	50%30%10%	50%30%10%	50%30%10%	50%30%10%	0
rfc	20%	20%	20%	20%	20%	0
RCRRC:Room Cavity Ratio Ceiling Cavity Exitance Coefficients(CCEC)						
0.0	.137 .137 .137	.117 .117 .117	.080 .080 .080	.046 .046 .046	.015 .015 .015	
1.0	.122 .113 .105	.104 .097 .090	.071 .067 .062	.041 .039 .036	.013 .012 .012	
2.0	.110 .095 .083	.094 .082 .071	.064 .057 .050	.037 .033 .029	.012 .011 .010	
3.0	.100 .081 .066	.086 .070 .058	.059 .049 .040	.034 .028 .024	.011 .009 .008	
4.0	.092 .071 .054	.079 .061 .047	.054 .042 .033	.031 .025 .020	.010 .008 .006	
5.0	.085 .062 .045	.073 .054 .039	.050 .037 .028	.029 .022 .016	.009 .007 .005	
6.0	.079 .055 .038	.068 .048 .033	.047 .033 .023	.027 .020 .014	.009 .006 .005	
7.0	.074 .049 .032	.064 .043 .028	.044 .030 .020	.026 .018 .012	.008 .006 .004	
8.0	.070 .045 .028	.060 .039 .024	.041 .027 .017	.024 .016 .010	.008 .005 .003	
9.0	.066 .041 .024	.057 .035 .021	.039 .025 .015	.023 .015 .009	.007 .005 .003	
10.0	.062 .038 .021	.054 .033 .018	.037 .023 .013	.022 .014 .008	.007 .004 .003	

C Range:0-360DEG
 C Interval:5.0DEG
 Test Speed:HIGH
 Temperature:30DEG
 Operators:
 Test Date:2023-12-11

g Range:0-90DEG
 g Interval:0.5DEG
 Test System :EVERFINE GO-2000B_V1 SYSTEM V2.0.275
 Humidity:65.0%
 Test Distance: 5.835m [K=1.0000]
 Remarks:



Uncorrected UGR Table

Test:U:221.1V I:0.0460A P:9.870W PF:0.9530 Lamp Flux:945x1 lm										
NAME:					TYPE:			WEIGHT:		
DIM.:					SPEC.:			SERIAL No.:230728001		
MFR.:					SUR.:			PROTECTION 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 = 2Hy = 2H	5.9	6.7	6.2	6.9	7.1	4.9	5.7	5.1	5.8	6.0	
	3H	5.8	6.5	6.0	6.7	6.9	6.3	7.0	6.5	7.2	7.4
	4H	5.7	6.4	6.0	6.6	6.8	8.2	8.9	8.5	9.1	9.3
	6H	5.6	6.3	5.9	6.5	6.8	10.5	11.1	10.7	11.3	11.6
	8H	5.6	6.2	5.9	6.5	6.7	11.7	12.3	12.0	12.5	12.8
	12H	5.5	6.1	5.8	6.4	6.7	13.0	13.6	13.3	13.9	14.1
4H 2H	5.8	6.5	6.0	6.7	6.9	4.7	5.4	5.0	5.7	5.9	
	3H	5.7	6.3	6.0	6.6	6.9	6.9	7.5	7.2	7.7	8.0
	4H	5.8	6.3	6.1	6.6	6.9	9.3	9.8	9.6	10.1	10.4
	6H	6.0	6.5	6.4	6.8	7.1	11.9	12.4	12.3	12.7	13.1
	8H	6.2	6.6	6.5	7.0	7.3	13.3	13.7	13.7	14.1	14.4
	12H	6.4	6.8	6.8	7.2	7.6	14.8	15.2	15.2	15.5	15.9
8H 4H	7.4	7.8	7.8	8.2	8.6	10.0	10.4	10.4	10.8	11.1	
	6H	9.0	9.4	9.4	9.8	10.2	13.0	13.3	13.4	13.7	14.1
	8H	10.1	10.5	10.6	10.9	11.3	14.5	14.8	15.0	15.3	15.7
	12H	11.5	11.8	11.9	12.2	12.7	16.2	16.5	16.7	16.9	17.4
12H 4H	8.1	8.5	8.5	8.8	9.2	10.2	10.6	10.6	10.9	11.3	
	6H	10.1	10.5	10.6	10.9	11.3	13.3	13.6	13.7	14.0	14.5
	8H	11.6	11.9	12.1	12.3	12.8	15.0	15.2	15.4	15.7	16.2
Variations with the observer position at spacings:											
S = 1.0H	+ 1.1 /-0.6					+ 0.3 /-0.3					
1.5H	+ 2.4 /-0.6					+ 0.5 /-0.2					
2.0H	+ 0.3 /-0.3					+ 0.3 /-0.4					

CIE Pub.117 Corrected 945.0 lm Total Lamp Luminous Flux.(8log(F/F0) = -0.2)

C Range:0-360DEG
 C Interval:5.0DEG
 Test Speed:HIGH
 Temperature:30DEG
 Operators:
 Test Date:2023-12-11

g Range:0-90DEG
 g Interval:0.5DEG
 Test System :EVERFINE GO-2000B_V1 SYSTEM V2.0.275
 Humidity:65.0%
 Test Distance: 5.835m [K=1.0000]
 Remarks:



IDEA

/ BOMBU (07.AA86._0__.)

UTILIZATION FACTORS TABLE

Test:U:221.1V I:0.0460A P:9.870W PF:0.9530 Lamp Flux:945x1 lm		
NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:230728001
MFR.:	SUR.:	PROTECTION 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) $k(R) \times RCR = 5$									
k = 0.60	64	60	57	64	60	57	63	60	57	55
0.80	69	65	63	69	65	63	68	65	63	60
1.00	72	68	66	72	68	66	70	68	65	63
1.25	75	71	69	74	71	69	73	70	68	65
1.50	77	73	71	76	73	71	74	72	70	67
2.00	78	75	73	77	75	73	75	73	72	68
2.50	79	77	75	78	76	74	76	74	73	69
3.00	80	78	76	79	77	75	77	75	74	69
4.00	82	80	78	80	79	77	78	76	75	70
5.00	83	81	80	81	80	79	78	77	76	71
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHR NOM = 1.25		

C Range:0-360DEG
C Interval:5.0DEG
Test Speed:HIGH
Temperature:30DEG
Operators:
Test Date:2023-12-11

g Range:0-90DEG
g Interval:0.5DEG
Test System :EVERFINE GO-2000B_V1 SYSTEM V2.0.275
Humidity:65.0%
Test Distance: 5.835m [K=1.0000]
Remarks:

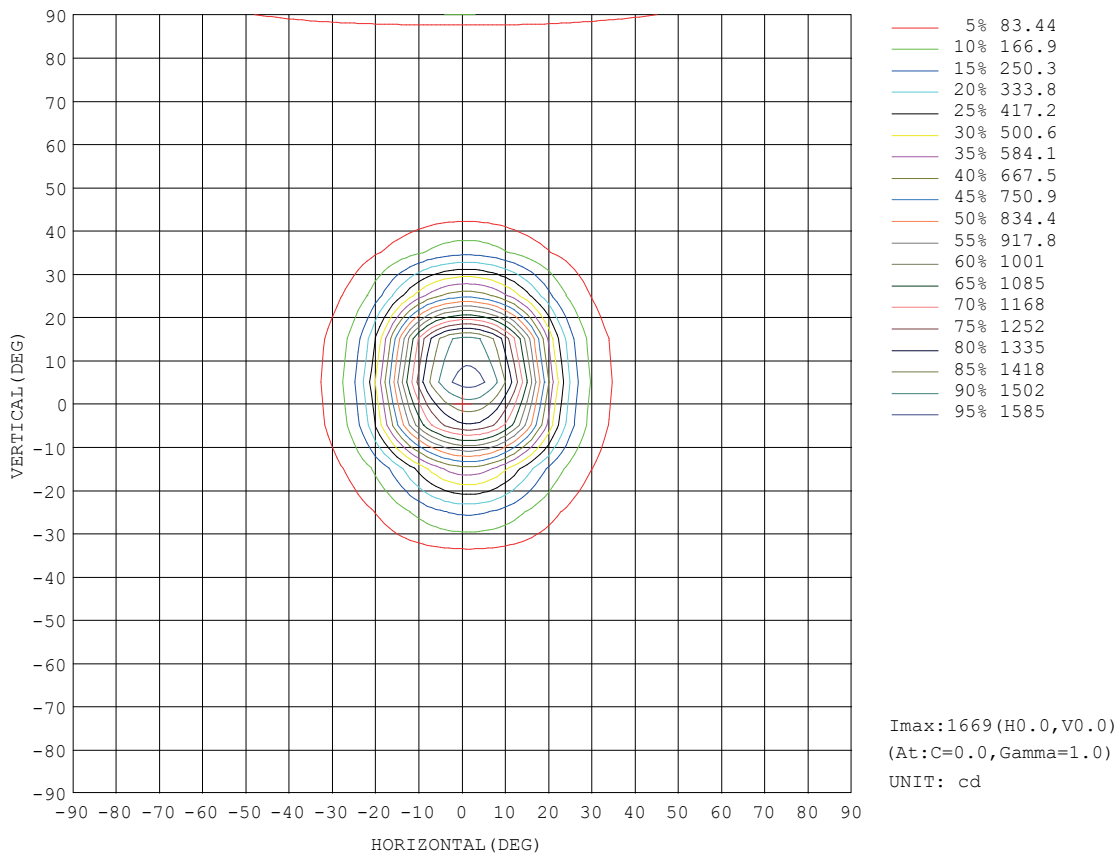


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/ BOMBU (07.AA86._0__.)

ISOCANDELA DIAGRAM

Test:U:221.1V I:0.0460A P:9.870W PF:0.9530 Lamp Flux:945x1 lm		
NAME :	TYPE :	WEIGHT :
DIM. :	SPEC. :	SERIAL No.:230728001
MFR. :	SUR. :	PROTECTION ANGLE :



C Range:0-360DEG
C Interval:5.0DEG
Test Speed:HIGH
Temperature:30DEG
Operators:
Test Date:2023-12-11

g Range:0-90DEG
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Test System :EVERFINE GO-2000B_V1 SYSTEM V2.0.275
Humidity:65.0%
Test Distance: 5.835m [K=1.0000]
Remarks:

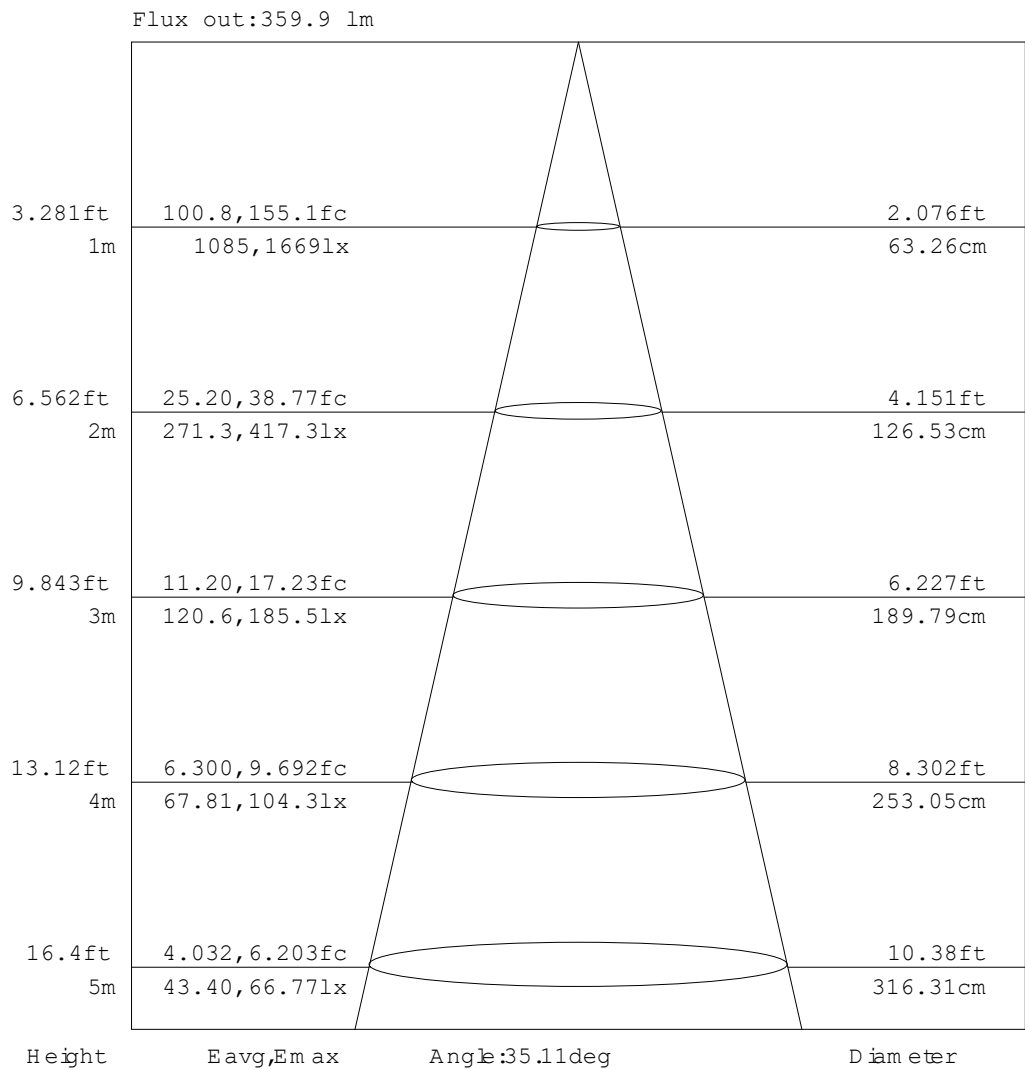


IDEA

/ BOMBU (07.AA86._0__.)

AAI Figure

Test:U:221.1V I:0.0460A P:9.870W PF:0.9530 Lamp Flux:945x1 lm		
NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:230728001
MFR.:	SUR.:	PROTECTION ANGLE:



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

C Range:0-360DEG	g Range:0-90DEG
C Interval:5.0DEG	g Interval:0.5DEG
Test Speed:HIGH	Test System :EVERFINE GO-2000B_V1 SYSTEM V2.0.275
Temperature:30DEG	Humidity:65.0%
Operators:	Test Distance: 5.835m [K=1.0000]
Test Date:2023-12-11	Remarks:

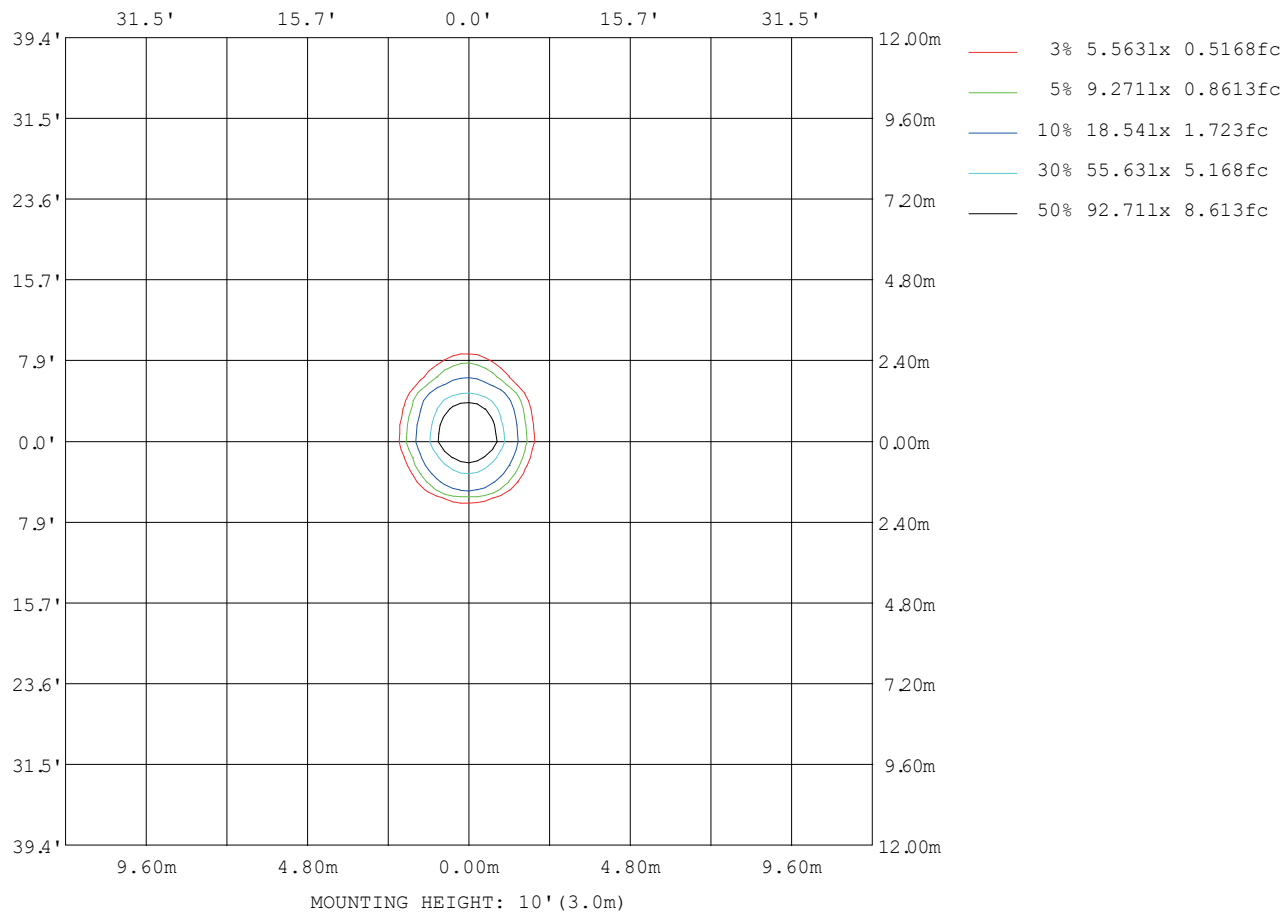


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/ BOMBU (07.AA86._0__.)

ISOLUX DIAGRAM

Test:U:221.1V I:0.0460A P:9.870W PF:0.9530 Lamp Flux:945x1 lm		
NAME:	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:230728001
MFR.:	SUR.:	PROTECTION ANGLE:



C Range:0-360DEG
C Interval:5.0DEG
Test Speed:HIGH
Temperature:30DEG
Operators:
Test Date:2023-12-11

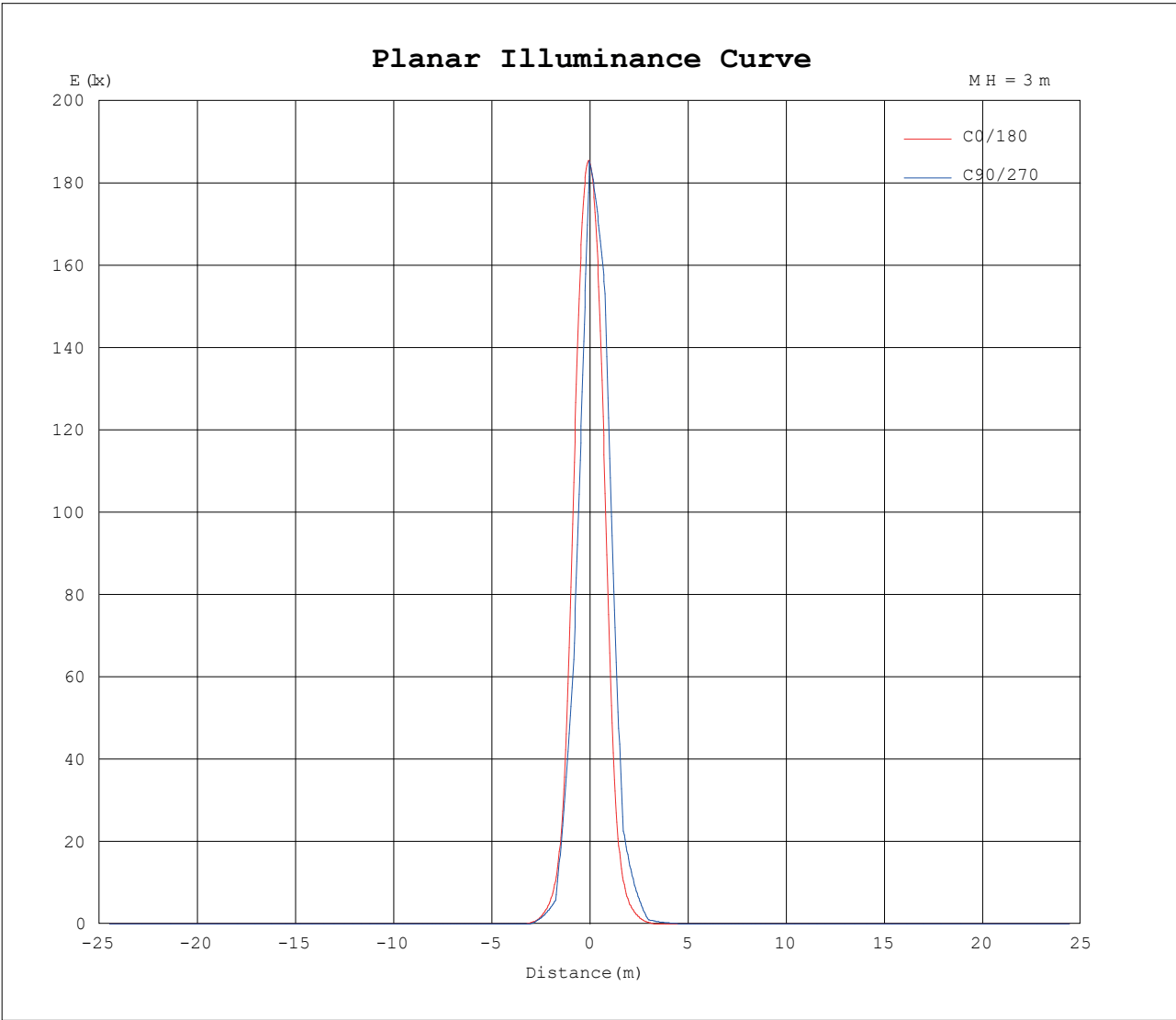
g Range:0-90DEG
g Interval:0.5DEG
Test System :EVERFINE GO-2000B_V1 SYSTEM V2.0.275
Humidity:65.0%
Test Distance: 5.835m [K=1.0000]
Remarks:



IDEA

/ BOMBU (07.AA86._0__.)

Planar Illuminance Curve



C Range:0-360DEG
C Interval:5.0DEG
Test Speed:HIGH
Temperature:30DEG
Operators:
Test Date:2023-12-11

g Range:0-90DEG
g Interval:0.5DEG
Test System :EVERFINE GO-2000B_V1 SYSTEM V2.0.275
Humidity:65.0%
Test Distance: 5.835m [K=1.0000]
Remarks: