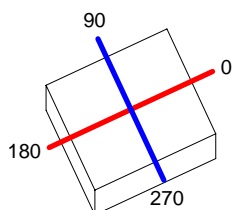


<b>Luminaire</b>		<b>Measurem.</b>		<b>Lamp</b>		
Code	5435	Code	5435	Code	66748 ECO	
Name	Triple ceiling lamp hal.	Name	Triple ceiling lamp hal.	Number	3	
Line	VIBIA-Puck	Date	04-06-2012	Position	Universal	
Efficiency	52.33%	Coordinate system	C-G	Total Flux	2220.00 lm	
Maximum value	133.67 cd/klm	Position	C=0.00 G=0.00	Double Symmetrical		
Rectangular Luminaire	Length	492 mm	Width	568 mm	Height	110 mm
Rectangular Luminous Area	Length	492 mm	Width	568 mm	Height	95 mm
Horizontal Luminous Area	0.279456 m2	Emitting area on Plane 180°		0.046740 m2		
Emitting area on Plane 0°	0.046740 m2	Emitting area on Plane 270°		0.053960 m2		
Emitting area on Plane 90°	0.053960 m2	Glare area at 76°		0.112958 m2		
Symmetry Type	Double Symmetrical	Maximum Gamma Angle		180		
Measurement Distance	6.44	Measurement Flux		2220.00 lm		
Operator	Asselum T2	Source voltage		230.00 V		
Temperature	24.00 °C	Source current		PRC		
Humidity	52.00 %	Photocell				
Notes						

Luminaire Lamps					
Line	Code	Name	Fluxlm	Pow.W	Qta
OSRAM 2006 HS, HM, HD, HR	66748 ECO	HALOPIN® ECO 48W G9	740.00	48.00	3
C.I.E.	43 73 91 80 52	D DIN 5040			
F UTE	0.42 G + 0.10 T	B NBN		B31	
				BZ 5	

492mm x 568mm

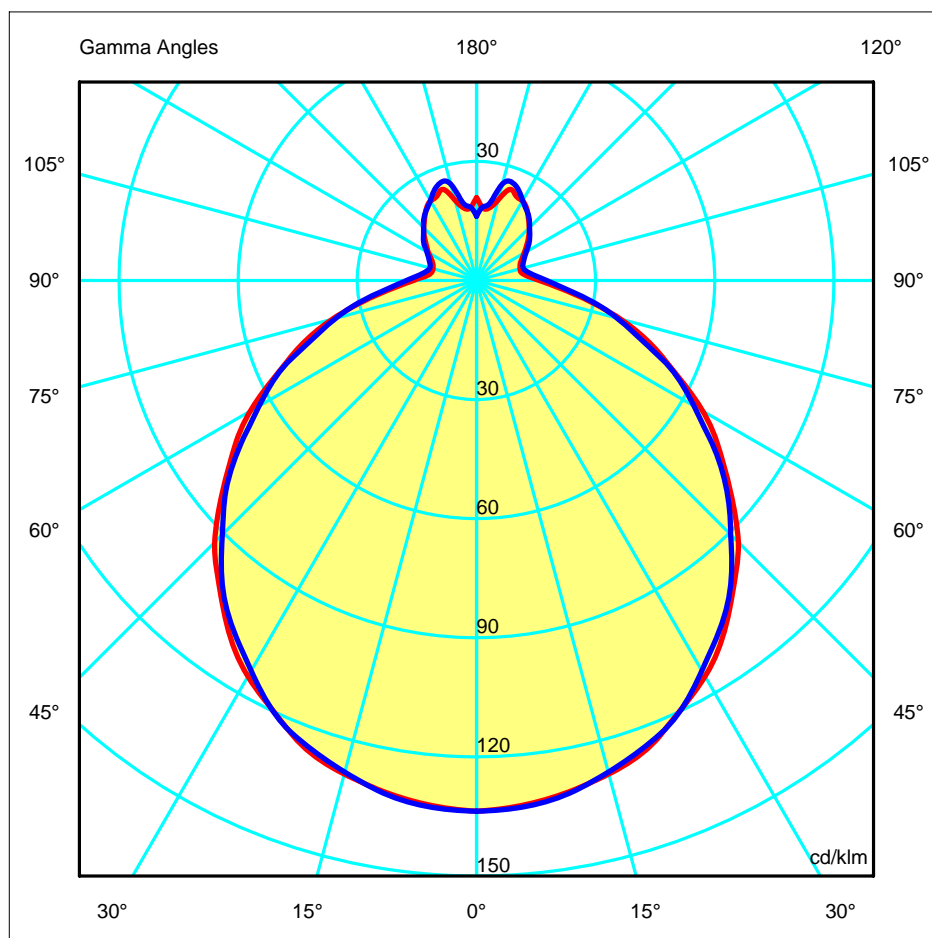


C Halfplanes

180.0 — 0.0

270.0 — 90.0

ULOR 10.22 %  
 DLOR 42.11 %  
 RN 19.53 %



<b>Luminaire</b>		<b>Measur.</b>		<b>Lamp</b>			
Code	5435	Code	5435	Code	66748 ECO		
Name	Triple ceiling lamp hal.	Name	Triple ceiling lamp hal.	Number	3		
Line	VIBIA-Puck	Date	04-06-2012	Position	Universal		
Efficiency	52.33%	Coordinate system	C-G	Total Flux	2220.00 lm		
<b>Luminous Intensity Table cd/klm</b>			<b>Table 1/1</b>				
	C 0.00	C 15.00	C 30.00	C 45.00	C 60.00	C 75.00	C 90.00
G 0.0	133.67	133.67	133.67	133.67	133.67	133.67	133.67
G 5.0	132.69	132.97	132.89	133.02	132.89	132.96	133.14
G 10.0	130.95	131.48	131.28	131.40	131.38	131.14	131.37
G 15.0	128.68	128.63	128.64	128.47	128.66	128.35	128.18
G 20.0	125.58	124.55	124.41	124.76	124.62	124.38	124.76
G 25.0	120.17	119.53	119.32	120.01	119.79	119.45	120.33
G 30.0	115.15	113.69	113.56	113.82	113.79	113.70	113.49
G 35.0	108.55	107.21	106.94	107.21	106.52	106.87	106.96
G 40.0	100.73	99.35	99.03	99.77	98.99	99.06	99.65
G 45.0	93.26	90.65	90.16	90.61	91.07	90.26	90.50
G 50.0	83.62	82.16	81.60	82.46	81.45	81.51	82.37
G 55.0	74.81	72.78	72.43	72.42	72.68	72.51	72.74
G 60.0	65.84	62.88	62.58	63.09	63.09	62.88	63.16
G 65.0	55.25	53.21	53.34	54.50	54.02	53.74	54.93
G 70.0	46.65	44.50	44.10	44.36	44.68	44.93	44.57
G 75.0	37.62	35.23	35.29	35.94	35.88	36.29	36.75
G 80.0	28.28	26.53	26.94	27.69	27.37	28.25	29.13
G 85.0	20.91	19.55	20.52	20.31	21.20	21.49	22.14
G 90.0	15.82	15.26	15.99	15.89	16.42	16.60	17.65
G 95.0	12.86	12.62	13.19	12.89	13.46	13.80	14.69
G100.0	11.47	11.42	12.01	11.88	12.12	12.31	12.90
G105.0	11.35	11.40	11.68	11.74	11.90	11.84	12.17
G110.0	11.69	11.94	12.11	12.18	12.34	12.21	12.47
G115.0	12.51	12.95	13.09	13.12	13.19	13.20	13.29
G120.0	13.95	14.34	14.40	14.34	14.52	14.47	14.40
G125.0	15.38	15.75	15.74	15.86	15.86	15.79	16.18
G130.0	17.16	17.18	17.19	17.19	17.38	17.23	17.44
G135.0	18.80	18.86	18.90	18.85	18.99	18.77	18.88
G140.0	20.34	20.51	20.52	20.56	20.55	20.38	20.60
G145.0	22.06	21.79	21.92	21.88	22.14	21.81	21.87
G150.0	23.15	22.69	22.95	23.02	23.36	22.85	23.27
G155.0	23.52	23.12	23.43	23.69	25.04	24.00	25.11
G160.0	24.42	22.87	22.86	24.03	26.09	25.63	26.29
G165.0	20.96	21.07	22.24	22.35	23.31	24.50	25.14
G170.0	18.56	17.74	18.89	19.58	20.81	21.15	19.91
G175.0	18.33	18.44	19.22	18.44	17.07	18.48	18.63
G180.0	20.88	21.06	18.98	18.69	18.75	18.09	16.19

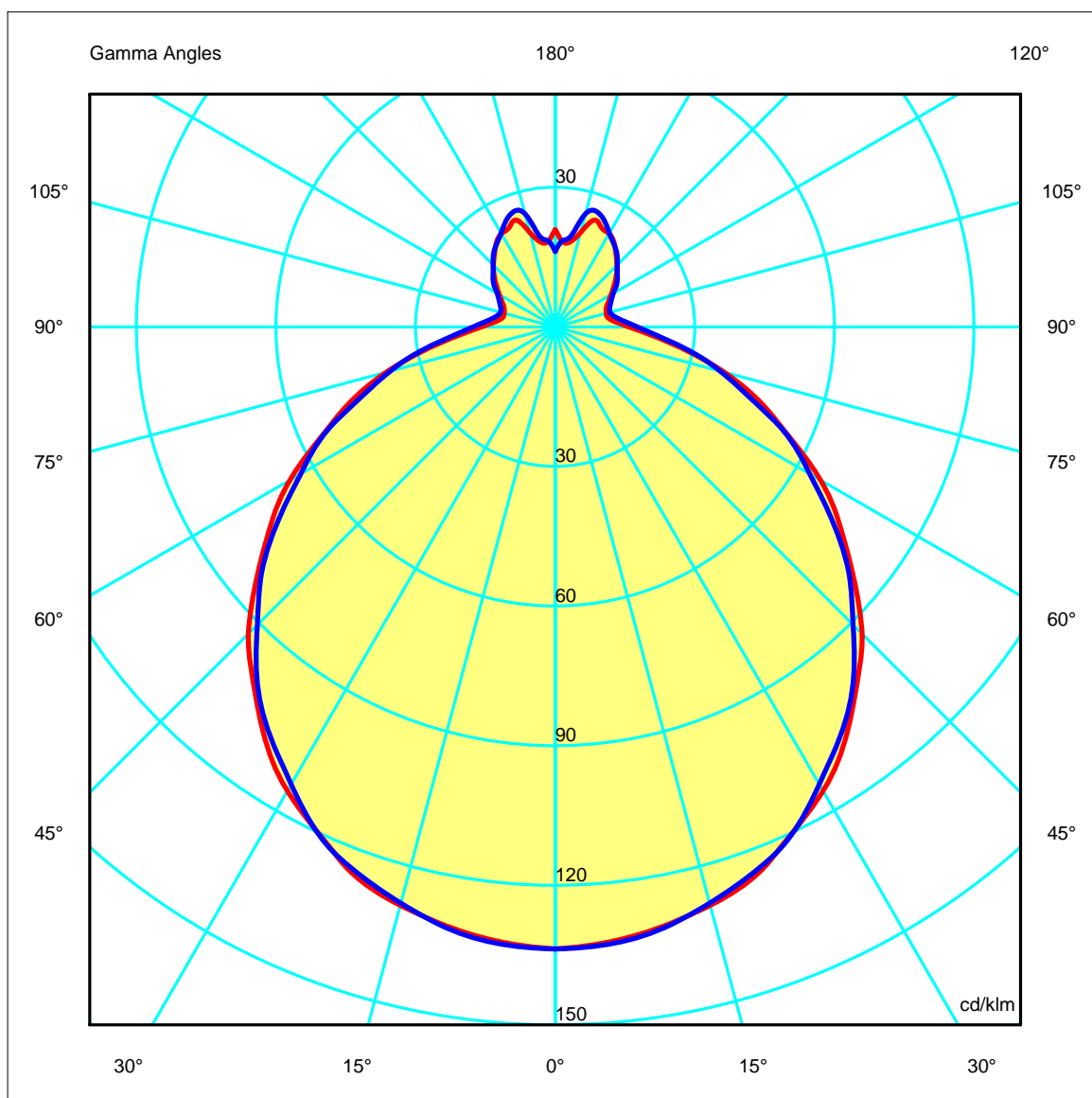
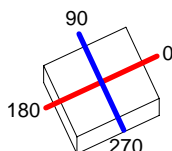
<b>Luminaire</b>		<b>Measurem.</b>		<b>Lamp</b>	
Code	5435	Code	5435	Code	66748 ECO
Name	Triple ceiling lamp hal.	Name	Triple ceiling lamp hal.	Number	3
Line	VIBIA-Puck	Date	04-06-2012	Position	Universal
Efficiency	52.33%	Coordinate system	C-G	Total Flux	2220.00 lm

492mm x 568mm

C Halfplanes

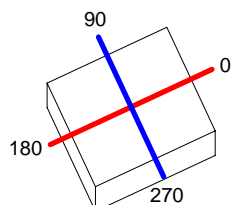
180.0 ————— 0.0

270.0 ————— 90.0



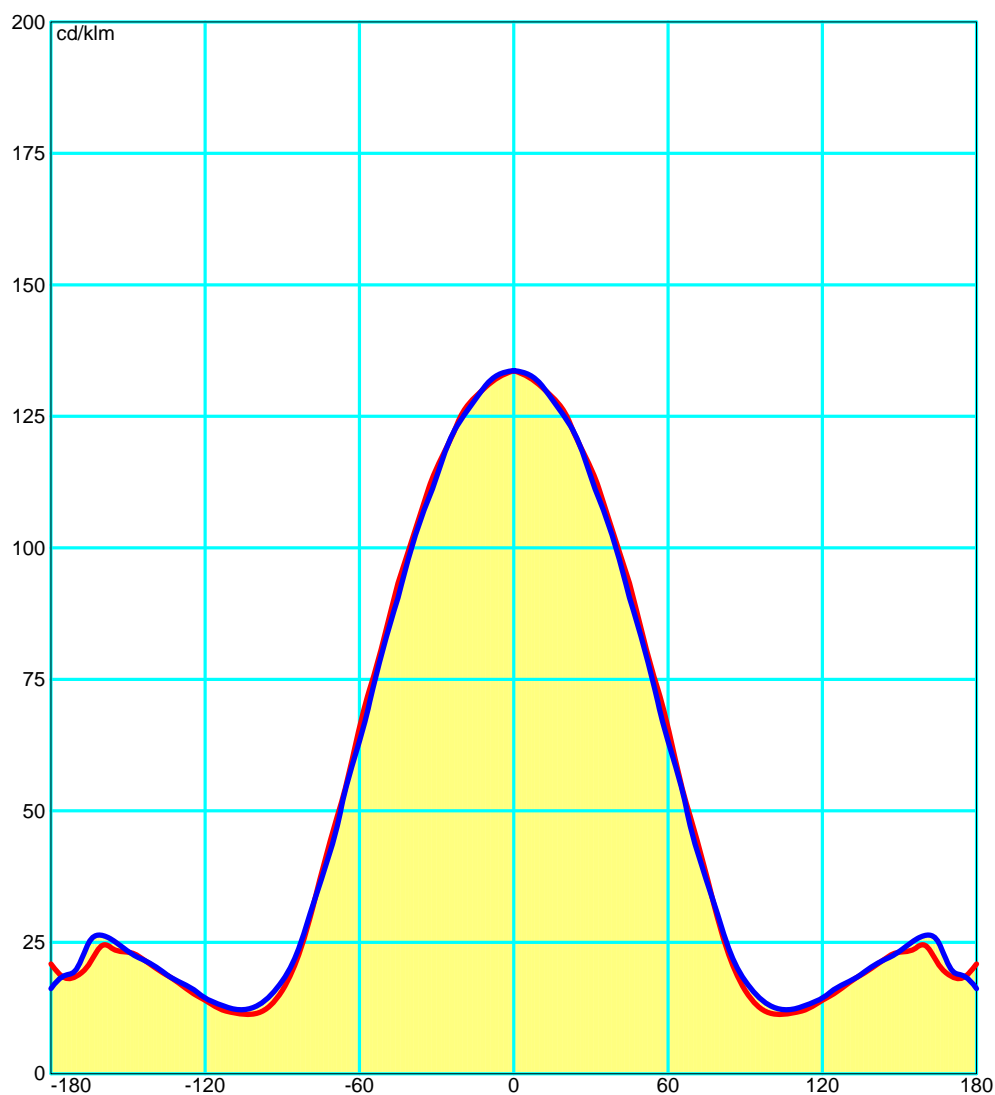
<b>Luminaire</b>		<b>Measurem.</b>		<b>Lamp</b>	
Code	5435	Code	5435	Code	66748 ECO
Name	Triple ceiling lamp hal.	Name	Triple ceiling lamp hal.	Number	3
Line	VIBIA-Puck	Date	04-06-2012	Position	Universal
Efficiency	52.33%	Coordinate system	C-G	Total Flux	2220.00 lm

492mm x 568mm



C Halfplanes

180.0 ————— 0.0  
 270.0 ————— 90.0

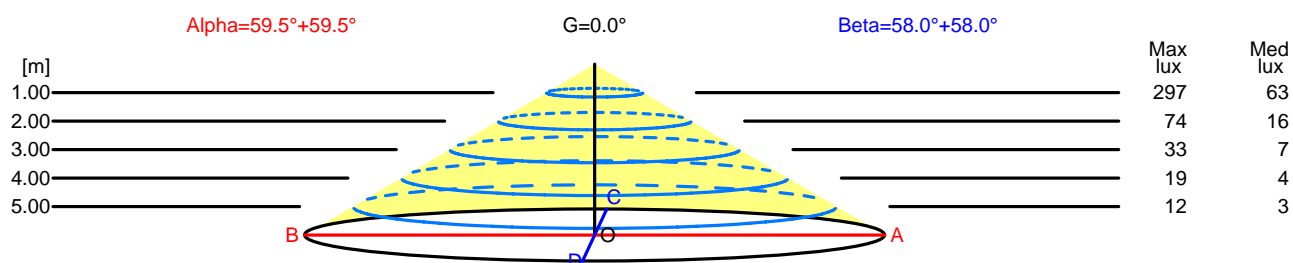


<b>Luminaire</b>		<b>Measurem.</b>		<b>Lamp</b>	
Code	5435	Code	5435	Code	66748 ECO
Name	Triple ceiling lamp hal.	Name	Triple ceiling lamp hal.	Number	3
Line	VIBIA-Puck	Date	04-06-2012	Position	Universal
Efficiency	52.33%	Coordinate system	C-G	Total Flux	2220.00 lm

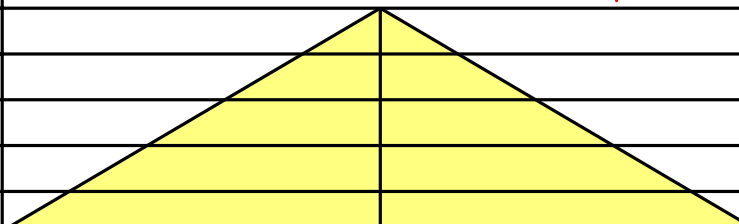
Width at 50.00 % of MaxLux

H[m]	1.00	2.00	3.00	4.00	5.00	H[m]	1.00	2.00	3.00	4.00	5.00
OA	1.70	3.39	5.09	6.79	8.48	OC	1.60	3.20	4.80	6.39	7.99
OB	1.70	3.39	5.09	6.79	8.48	OD	1.60	3.20	4.80	6.39	7.99

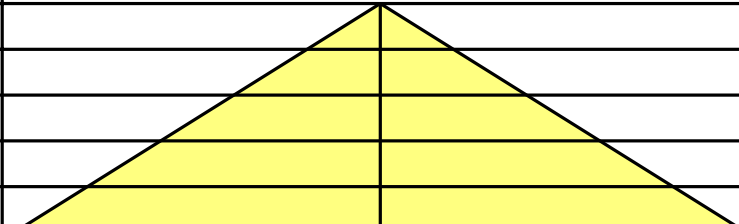
	Luminous Intensities [ cd/klm]									
	0	5	15	25	35	45	55	65	75	85
OA	133.67	132.69	128.68	120.17	108.55	93.26	74.81	55.25	37.62	20.91
OB	133.67	132.69	128.68	120.17	108.55	93.26	74.81	55.25	37.62	20.91
OC	133.67	133.14	128.18	120.33	106.96	90.50	72.74	54.93	36.75	22.14
OD	133.67	133.14	128.18	120.33	106.96	90.50	72.74	54.93	36.75	22.14



H[m]	D[m]	Max lux	Med lux	Alpha=59.5°+59.5°	G=0.0
1.00	3.39	297	63		
2.00	6.79	74	16		
3.00	10.18	33	7		
4.00	13.58	19	4		
5.00	16.97	12	3		



H[m]	D[m]	Max lux	Med lux	Beta=58.0°+58.0°	G=0.0
1.00	3.20	297	63		
2.00	6.39	74	16		
3.00	9.59	33	7		
4.00	12.79	19	4		
5.00	15.99	12	3		



<b>Luminaire</b>		<b>Measur.</b>		<b>Lamp</b>	
Code	5435	Code	5435	Code	66748 ECO
Name	Triple ceiling lamp hal.	Name	Triple ceiling lamp hal.	Number	3
Line	VIBIA-Puck	Date	04-06-2012	Position	Universal
Efficiency	52.33%	Coordinate system	C-G	Total Flux	2220.00 lm

Total Flux=2220.00 Luminaire Flux=1161.77

RI	0.60	0.80	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00	10.00	20.00
DRR	0.28	0.36	0.43	0.50	0.55	0.63	0.69	0.73	0.79	0.82	0.90	0.94
RC	6	6	6	6	6	6	6	6	6	6	6	6

Zonal Flux per 1000 Lumen

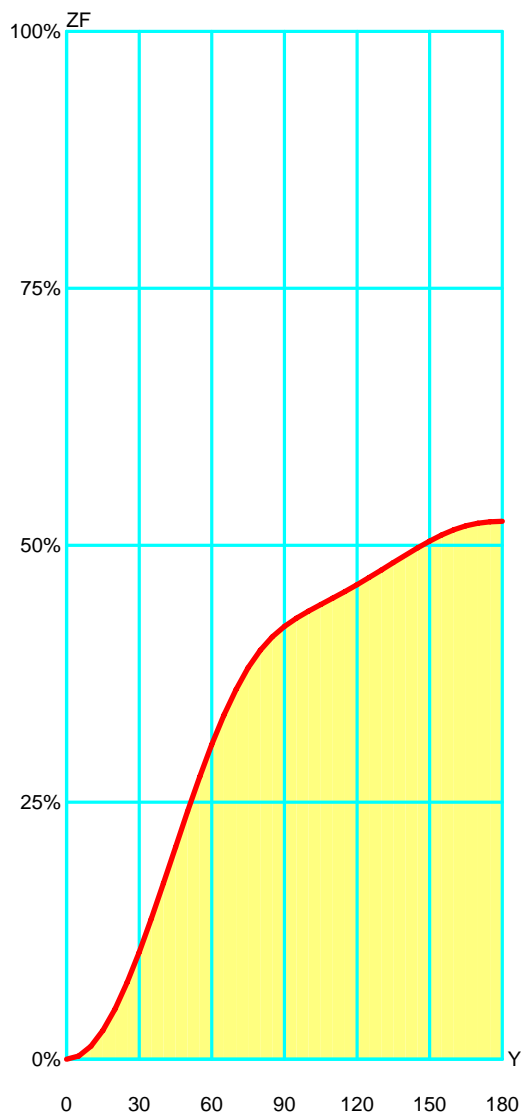
Y°	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
ZF(Y)	13	49	104	171	241	306	360	398	421	436	449	462	476	490	504	515	522	523

CIE Flux Codes

43 73 91 80 52

C.I.E. 6  
D DIN 5040 B31  
F UTE 0.42 G + 0.10 T  
B NBN BZ 5  
RN 19.53492 %  
BLF 1.0

LOR 52.33209 %  
ULOR 10.22304 %  
DLOR 42.10906 %  
UFF 19.53492 %  
DFF 80.46508 %  
FFR 24.27752 %



Zonal Flux				
Gamma °	Flux	Sum lm	Flux [%]	Sum [%]
0°	0.00	0.00	0.00 %	0.00 %
5°	3.19	3.19	0.61 %	0.61 %
10°	9.45	12.64	1.81 %	2.42 %
15°	15.41	28.05	2.95 %	5.36 %
20°	20.87	48.92	3.99 %	9.35 %
25°	25.63	74.55	4.90 %	14.25 %
30°	29.55	104.10	5.65 %	19.89 %
35°	32.53	136.63	6.22 %	26.11 %
40°	34.45	171.08	6.58 %	32.69 %
45°	35.21	206.29	6.73 %	39.42 %
50°	34.92	241.21	6.67 %	46.09 %
55°	33.66	274.87	6.43 %	52.52 %
60°	31.42	306.29	6.00 %	58.53 %
65°	28.48	334.77	5.44 %	63.97 %
70°	24.99	359.76	4.77 %	68.75 %
75°	21.08	380.84	4.03 %	72.77 %
80°	17.00	397.85	3.25 %	76.02 %
85°	13.14	410.98	2.51 %	78.53 %
90°	10.11	421.09	1.93 %	80.47 %
95°	8.06	429.15	1.54 %	82.01 %
100°	6.87	436.02	1.31 %	83.32 %
105°	6.34	442.36	1.21 %	84.53 %
110°	6.24	448.60	1.19 %	85.72 %
115°	6.39	454.99	1.22 %	86.94 %
120°	6.67	461.66	1.28 %	88.22 %
125°	6.97	468.63	1.33 %	89.55 %
130°	7.18	475.82	1.37 %	90.92 %
135°	7.30	483.11	1.39 %	92.32 %
140°	7.29	490.40	1.39 %	93.71 %
145°	7.08	497.48	1.35 %	95.06 %
150°	6.62	504.10	1.26 %	96.33 %
155°	5.94	510.04	1.14 %	97.46 %
160°	5.08	515.11	0.97 %	98.43 %
165°	3.89	519.01	0.74 %	99.18 %
170°	2.51	521.52	0.48 %	99.66 %
175°	1.36	522.87	0.26 %	99.91 %
180°	0.45	523.32	0.09 %	100.00 %

<b>Luminaire</b>		<b>Measurem.</b>		<b>Lamp</b>	
Code	5435	Code	5435	Code	66748 ECO
Name	Triple ceiling lamp hal.	Name	Triple ceiling lamp hal.	Number	3
Line	VIBIA-Puck	Date	04-06-2012	Position	Universal
Efficiency	52.33%	Coordinate system	C-G	Total Flux	2220.00 lm

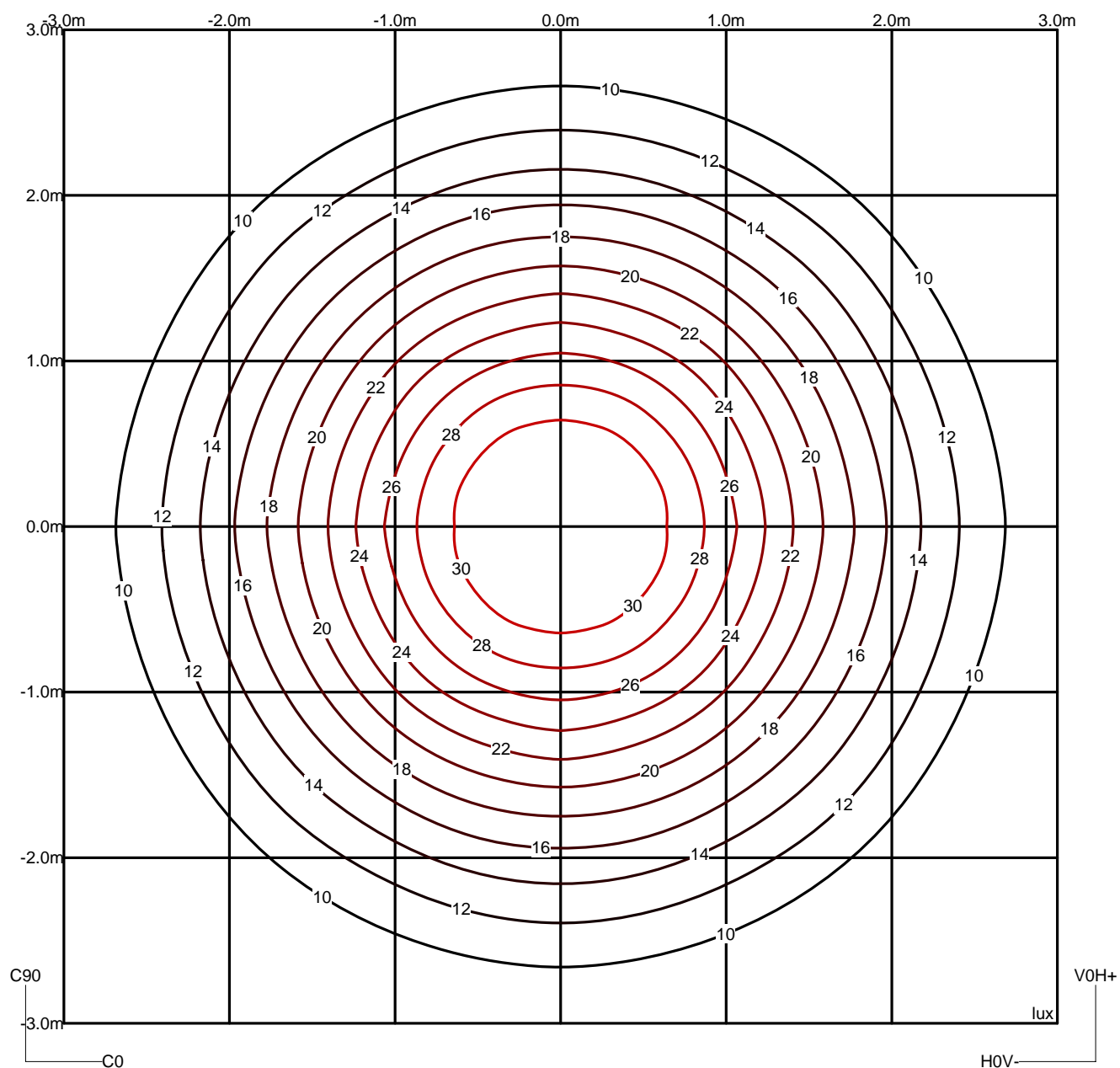
**UGR**  
S = 0.250

Reflectancies										
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
WorkingPlane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
RoomDimensions	ViewedCrosswise					ViewedEndwise				
x=2H y=2H	10.3	11.4	10.8	11.9	12.5	10.2	11.3	10.7	11.9	12.5
x=2H y=3H	12.0	13.0	12.6	13.6	14.2	11.9	12.9	12.5	13.5	14.2
x=2H y=4H	12.8	13.7	13.4	14.3	14.9	12.7	13.6	13.3	14.2	14.9
x=2H y=6H	13.5	14.4	14.1	15.0	15.6	13.4	14.3	14.0	14.9	15.6
x=2H y=8H	13.8	14.7	14.4	15.3	15.9	13.7	14.6	14.4	15.2	15.9
x=2H y=12H	14.1	14.9	14.7	15.6	16.2	14.0	14.9	14.7	15.5	16.2
x=4H y=2H	10.9	11.9	11.5	12.5	13.1	10.9	11.8	11.5	12.4	13.1
x=4H y=3H	12.8	13.6	13.5	14.3	14.9	12.7	13.6	13.4	14.2	14.9
x=4H y=4H	13.7	14.5	14.4	15.1	15.8	13.7	14.4	14.3	15.1	15.8
x=4H y=6H	14.5	15.2	15.2	15.9	16.6	14.5	15.2	15.2	15.8	16.6
x=4H y=8H	14.9	15.5	15.6	16.2	17.0	14.9	15.5	15.6	16.2	17.0
x=4H y=12H	15.3	15.8	16.0	16.5	17.4	15.3	15.8	16.0	16.6	17.4
x=8H y=4H	14.0	14.6	14.7	15.3	16.1	14.0	14.6	14.7	15.3	16.1
x=8H y=6H	15.0	15.5	15.8	16.3	17.1	15.0	15.5	15.8	16.2	17.1
x=8H y=8H	15.5	15.9	16.3	16.7	17.6	15.5	16.0	16.3	16.7	17.6
x=8H y=12H	16.0	16.4	16.8	17.1	18.1	16.0	16.4	16.8	17.2	18.1
x=12H y=4H	14.1	14.6	14.8	15.3	16.1	14.0	14.6	14.7	15.3	16.1
x=12H y=6H	15.1	15.6	15.9	16.3	17.2	15.1	15.5	15.9	16.3	17.2
x=12H y=8H	15.7	16.0	16.4	16.8	17.7	15.7	16.1	16.4	16.8	17.7

<b>Luminaire</b>		<b>Measur.</b>		<b>Lamp</b>	
Code	5435	Code	5435	Code	66748 ECO
Name	Triple ceiling lamp hal.	Name	Triple ceiling lamp hal.	Number	3
Line	VIBIA-Puck	Date	04-06-2012	Position	Universal
Efficiency	52.33%	Coordinate system	C-G	Total Flux	2220.00 lm

Isolux (Floor)

Luminaire position X=0.00m Y=0.00m Z=3.00m





<b>Luminaire</b>				<b>Measur.</b>				<b>Lamp</b>			
Code	5435			Code	5435			Code	66748 ECO		
Name	Triple ceiling lamp hal.			Name	Triple ceiling lamp hal.			Number	3		
Line	VIBIA-Puck			Date	04-06-2012			Position	Universal		
Efficiency	52.33%			Coordinate system	C-G			Total Flux	2220.00 lm		

#### Utilizations CIE

Mounting	Direct			114-Norm type Normalised										Suspension Ratio 3										Standard CIE Settings																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
	Ceiling																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
K	8873	8773	8871	8771	7773	7771	7753	7553	7751	7551	7731	7331	7711	7111	5551	5531	5331	5511	5111	3331	3311	1111	0000																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					

#### Wall

K	8873	8773	8871	8771	7773	7771	7753	7553	7751	7551	7731	7331	7711	7111	5551	5531	5331	5511	5111	3331	3311	1111	0000										
0.60	232	222	205	197	217	193	171	163	156	149	131	122	112	104	145	123	120	107	103	118	103	101	91										
0.80	266	256	229	221	248	216	202	193	180	172	154	145	135	125	167	145	141	128	123	139	123	120	108										
1.00	290	280	244	237	270	230	225	215	197	189	172	162	152	142	182	161	157	144	139	153	138	134	121										
1.25	312	302	256	250	291	243	248	238	212	205	188	178	169	159	197	177	173	160	155	168	153	147	133										
1.50	328	319	265	260	306	252	266	256	224	217	201	192	183	172	207	189	185	173	167	179	165	158	142										
2.00	348	341	274	270	325	261	290	281	237	231	217	209	201	190	220	204	200	189	184	192	180	172	154										
2.50	362	355	279	276	339	267	307	298	246	241	229	221	213	204	229	214	211	201	196	202	191	182	162										
3.00	372	366	283	280	348	271	319	311	253	248	237	230	223	214	235	222	219	210	205	209	199	189	168										
4.00	388	383	291	288	364	279	339	332	264	261	251	245	239	231	246	235	233	225	221	221	213	202	179										
5.00	400	395	297	295	375	286	354	348	273	270	262	256	251	244	255	246	243	236	233	231	224	212	188										
10.00	431	429	317	316	407	307	394	390	299	297	292	289	285	280	281	275	273	269	266	259	254	240	214										
20.00	454	453	333	332	430	323	422	420	319	318	314	312	310	308	301	297	296	293	292	280	277	262	235										

#### Working Pl.

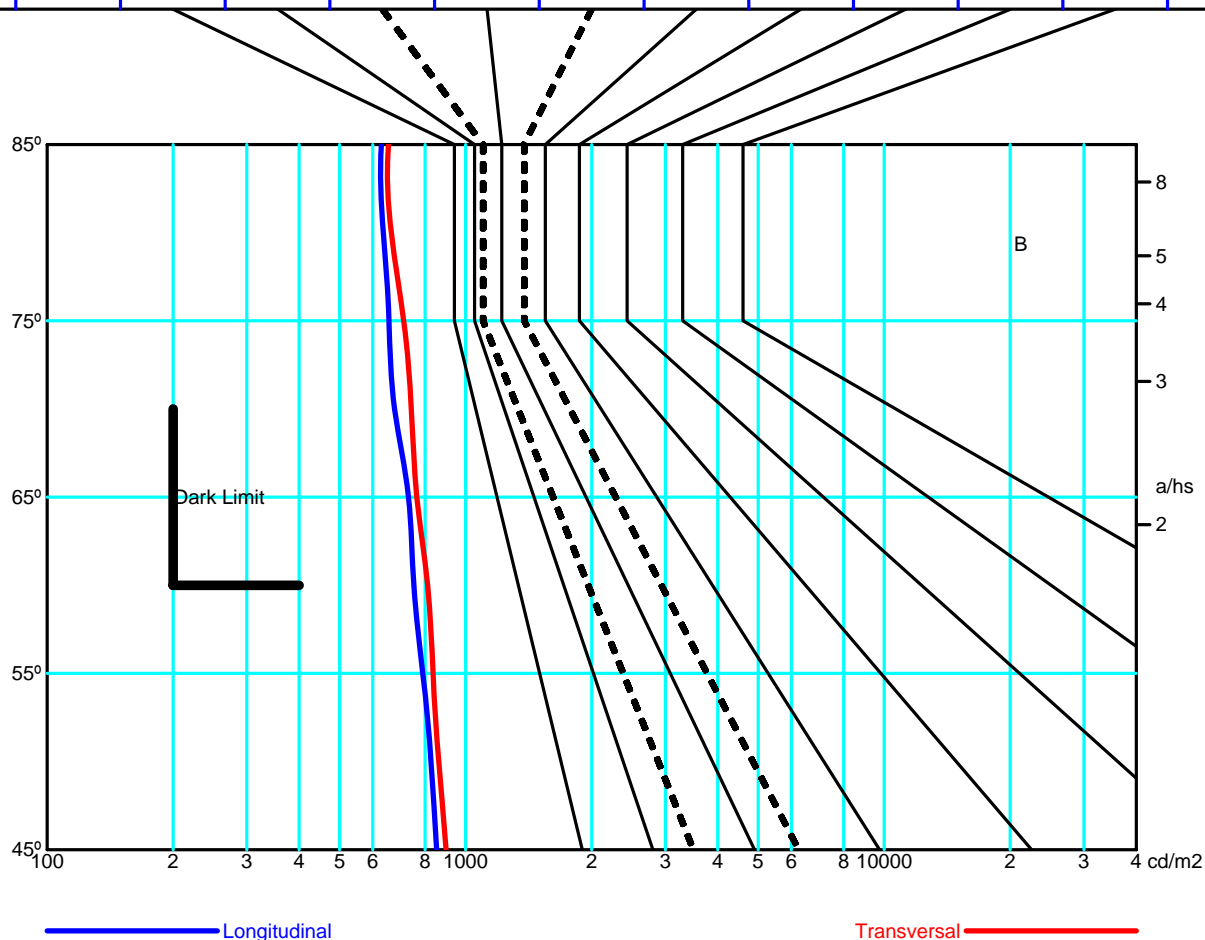
K	8873	8773	8871	8771	7773	7771	7753	7553	7751	7551	7731	7331	7711	7111	5551	5531	5331	5511	5111	3331	3311	1111	0000										
0.60	276	265	257	248	258	243	202	194	195	187	162	154	139	131	183	154	151	133	129	148	129	126	117										
0.80	330	318	304	294	308	287	251	240	239	231	205	194	180	169	223	194	190	171	166	185	165	160	150										
1.00	372	360	339	330	347	321	291	280	275	266	241	229	215	203	256	227	223	204	198	216	196	190	179										
1.25	412	401	372	363	385	352	331	319	310	301	277	265	251	237	288	260	255	238	231	247	228	219	208										
1.50	443	432	396	388	414	376	362	350	337	328	305	292	280	265	312	286	281	265	257	271	252	243	231										
2.00	488	477	430	423	456	409	410	398	376	368	348	336	324	310	349	326	321	306	299	308	291	279	267										
2.50	517	508	451	446	484	431	443	431	402	395	377	365	355	341	374	353	349	335	328	333	318	303	291										
3.00	538	530	466	461	504	446	467	456	420	414	398	387	378	365	391	373	369	357	349	351	338	321	309										
4.00	565	558	485	481	530	465	499	489	444	439	425	416	408	396	414	398	395	384	378	375	363	344	331										
5.00	582	576	496	493	546	477	519	511	459	454	443	435	428	417	428	415	411	402	397	390	380	359	346										
10.00	619	615	520	518	581	501	566	561	491	489	481	477	472	465	459	451	449	443	440	423	417	392	378										
20.00	639	637	532	532	601	515	593	590	509	508	504	501	498	495	477	472	471	468	466	443	439	412	398										

LM53 SHR C0-C180: 1.274 SHR C90-C270: 1.262 SHR Square: 1.389

<b>Luminaire</b>		<b>Measurem.</b>		<b>Lamp</b>	
Code	5435	Code	5435	Code	66748 ECO
Name	Triple ceiling lamp hal.	Name	Triple ceiling lamp hal.	Number	3
Line	VIBIA-Puck	Date	04-06-2012	Position	Universal
Efficiency	52.33%	Coordinate system	C-G	Total Flux	2220.00 lm

Average Luminance [cd/m <sup>2</sup> ]										
0°	45°	50°	55°	60°	65°	70°	75°	80°	85°	
897.6	861.7	836.3	811.0	764.4	742.4	710.9	664.1	654.4	---	
852.2	827.6	789.6	752.0	730.1	676.4	655.5	636.2	629.3	---	

Flush mounted or transversal view												
		Illumination(lx)										
A	A	2000	1000	750	500		<300					1.15
B	1		2000	1500	1000	750	500	<300				1.5
C					2000		1000	500	<300			1.85
D	2						2000	1000	500	<300		2.2
E	3							2000	1000	500	<300	2.55



<b>Luminaire</b>		<b>Measur.</b>		<b>Lamp</b>	
Code	5435	Code	5435	Code	66748 ECO
Name	Triple ceiling lamp hal.	Name	Triple ceiling lamp hal.	Number	3
Line	VIBIA-Puck	Date	04-06-2012	Position	Universal
Efficiency	52.33%	Coordinate system	C-G	Total Flux	2220.00 lm

Luminance												
G/C	0	30	60	90	120	150	180	210	240	270	300	330
0°	1061.88	1061.88	1061.88	1061.88	1061.88	1061.88	1061.88	1061.88	1061.88	1061.88	1061.88	1061.88
5°	1042.87	1037.82	1036.97	1044.06	1036.97	1037.82	1042.87	1037.82	1036.97	1044.06	1036.97	1037.82
10°	1026.05	1015.73	1014.89	1024.80	1014.89	1015.73	1026.05	1015.73	1014.89	1024.80	1014.89	1015.73
15°	1012.87	993.72	991.50	1002.33	991.50	993.72	1012.87	993.72	991.50	1002.33	991.50	993.72
20°	1000.73	966.80	965.41	985.42	965.41	966.80	1000.73	966.80	965.41	985.42	965.41	966.80
25°	977.15	940.04	940.06	967.64	940.06	940.04	977.15	940.04	940.06	967.64	940.06	940.04
30°	963.25	914.27	911.77	936.60	911.77	914.27	963.25	914.27	911.77	936.60	911.77	914.27
35°	942.37	887.11	878.64	913.73	878.64	887.11	942.37	887.11	878.64	913.73	878.64	887.11
40°	916.03	854.02	848.00	889.31	848.00	854.02	916.03	854.02	848.00	889.31	848.00	854.02
45°	897.60	815.95	817.98	852.21	817.98	815.95	897.60	815.95	817.98	852.21	817.98	815.95
50°	861.71	783.20	774.97	827.60	774.97	783.20	861.71	783.20	774.97	827.60	774.97	783.20
55°	836.29	745.97	741.12	789.65	741.12	745.97	836.29	745.97	741.12	789.65	741.12	745.97
60°	811.05	701.10	698.77	752.04	698.77	701.10	811.05	701.10	698.77	752.04	698.77	701.10
65°	764.37	660.64	660.24	730.12	660.24	660.64	764.37	660.64	660.24	730.12	660.24	660.64
70°	742.41	615.82	614.42	676.42	614.42	615.82	742.41	615.82	614.42	676.42	614.42	615.82
75°	710.88	569.78	568.82	655.49	568.82	569.78	710.88	569.78	568.82	655.49	568.82	569.78
80°	664.06	520.23	516.75	636.18	516.75	520.23	664.06	520.23	516.75	636.18	516.75	520.23
85°	654.44	497.65	499.56	629.28	499.56	497.65	654.44	497.65	499.56	629.28	499.56	497.65
90°	751.30	526.19	520.05	726.26	520.05	526.19	751.30	526.19	520.05	726.26	520.05	526.19

