

VERIFICA ECOSIDER SRL

Impianto : ZONA ESTERNI PERIMETRALI

Numero progetto : 707/17

Cliente : ECOSIDER SRL

Autore : Simonetta Cigolotti Architetto - Via Divisione Folgore 31 - 35141 Padova

Data : 07.07.2017

Descrizione progetto:

Progetto di verifica illuminotecnica a rispetto delle norme per il contenimento dell'inquinamento luminoso, il risparmio energetico nell'illuminazione per esterni e per la tutela dell'ambiente e dell'attività svolta dagli osservatori astronomici. legge Regionale del Veneto del 07/08/2009 N. 17 Norma EN 12464-2 UNI EN 13201-2 Norma UNI EN 12193

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Sommario

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1 Dati punti luce

1.1 DLIGHT, Luminaria Brooklyn LED... (Luminaria Brook...)

1.1.1 Pagina dati

Marca: DLIGHT

Luminaria Brooklyn LED 60W (1).Idt

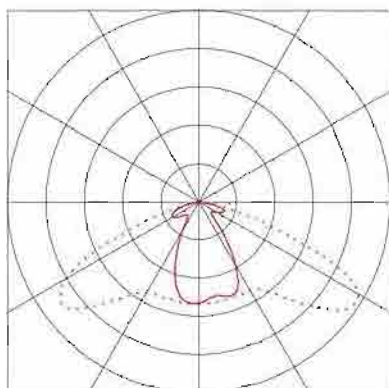
Luminaria Brooklyn LED 60W

Dati punti luce

Rendimento punto luce : 100%
Rendimento punto luce : 92.51 lm/W
Classificazione : A30 ↓100.0% ↑0.0%
CIE Flux Codes : 34 72 97 100 100
UGR 4H 8H (20%, 50%, 70%)
C0 / C90 : 29.5 / 32.0
Reattore/Alimentatore :
Potenza del sistema : 61.5 W
Lunghezza : 610 mm
Larghezza : 280 mm
Altezza : 70 mm

Sorgenti:

Quantità : 1
Nome :
Temp. Di Colore :
Flusso luminoso : 5689.5 lm
Resa cromatica : 0

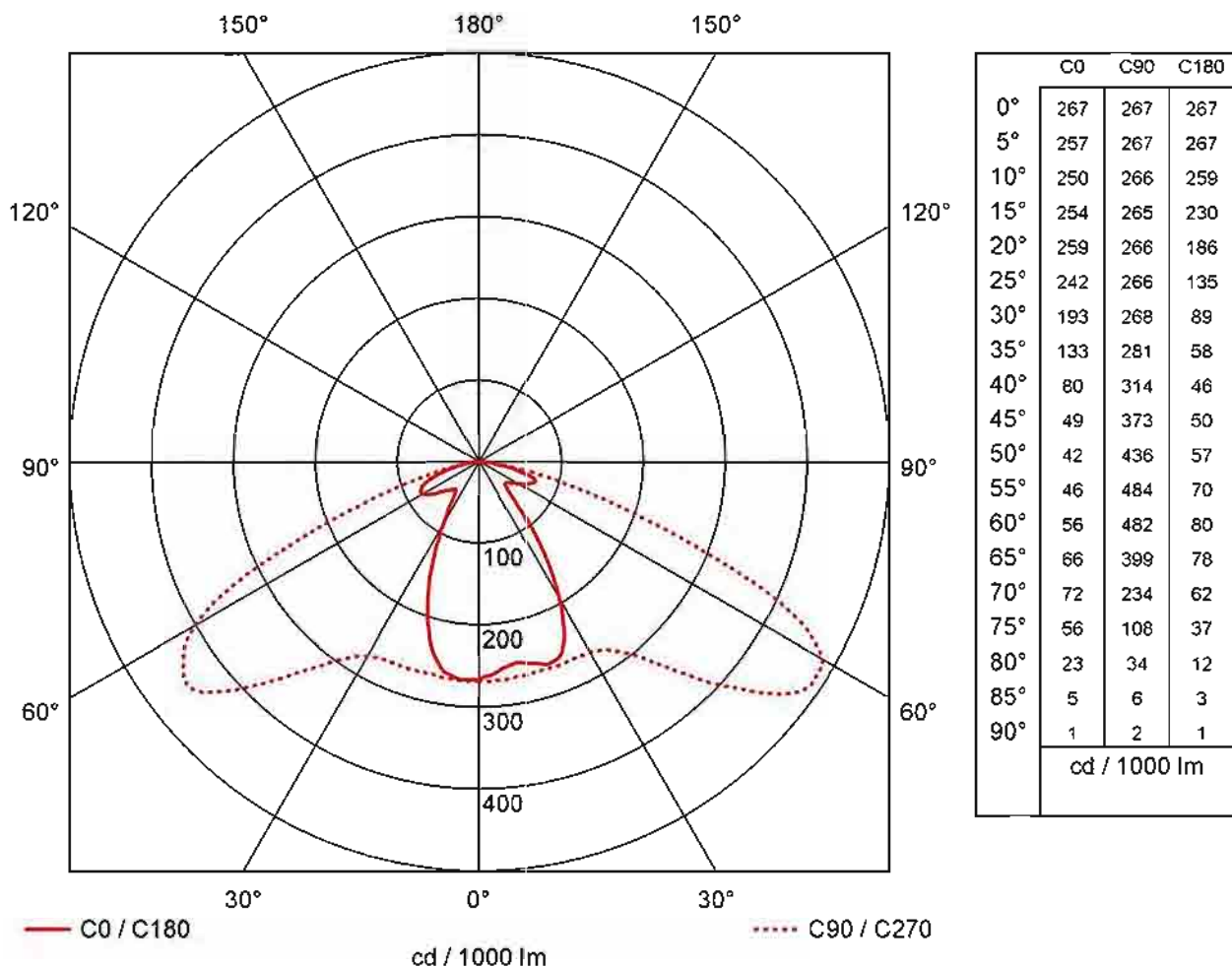


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1.1 DLIGHT, Luminaria Brooklyn LED... (Luminaria Brook...)

1.1.2 CDL



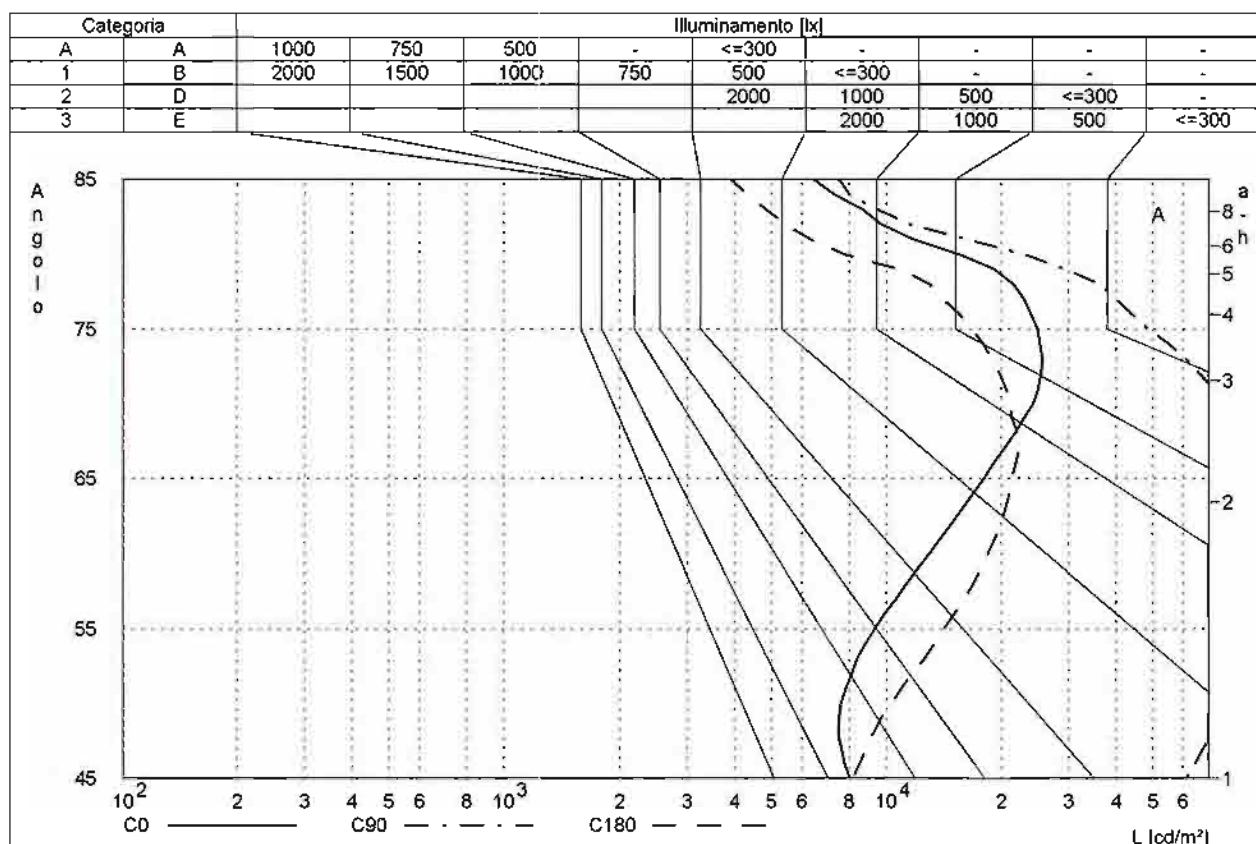
Marca	: DLIGHT	Rendimento	: 100%
Codice	: Luminaria Brooklyn LED 60W (1).ldt	Rendimento punto luce	: 92.51 lm/W (A30)
Nome punto luce	: Luminaria Brooklyn LED 60W	Distrib. della luce	: asimmetrico
Accessori	: 1 x / 5689.5 lm	Angolo fascio luminoso	: 24.8° C0
Dimensioni	: L 610 mm x L 280 mm x H 70 mm		: 69.7° C90
Nome file	: Luminaria Brooklyn LED 60W (1).ldt		: 13.1° C180
			: 66.4° C270

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1.1 DLIGHT, Luminaria Brooklyn LED... (Luminaria Brook...)

1.1.3 Diagramma Söller



Marca : DLIGHT
 Codice : Luminaria Brooklyn LED 60W (1).ldt
 Nome punto luce : Luminaria Brooklyn LED 60W
 Accessori : 1 x / 5689.5 lm
 Dimensioni : L 610 mm x L 280 mm x H 70 mm
 Nome file : Luminaria Brooklyn LED 60W (1).ldt

Rendimento : 100%
 Rendimento punto luce : 92.51 lm/W (A30)
 Distrib. della luce : asimmetrico
 Angolo fascio luminoso : 24.8° C0
 69.7° C90
 13.1° C180
 66.4° C270

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1.1 DLIGHT, Luminaria Brooklyn LED... (Luminaria Brook...)

1.1.4 Tabella luminanza

	C0	C15	C30	C45	C60	C75	C90	C105	C120	C135	C150	C165
65°	18017	38331	89114	109427	119584	119214	109427	89855	40923	21351	11564	15068
70°	24268	36480	67010	79222	85328	85691	79222	66283	33937	20998	14529	17718
75°	24892	30144	43275	48528	51154	52058	48528	41468	23818	16758	13228	15427
80°	15534	17179	21291	22936	23758	24622	22936	19563	11132	7760	6074	7651
85°	6443	6682	7280	7519	7639	7919	7519	6718	4716	3916	3515	3910

	C180	C195	C210	C225	C240	C255	C270	C285	C300	C315	C330	C345
65°	21351	33915	65325	77890	84172	84542	77890	64585	31322	18017	11365	7861
70°	20998	27558	43959	50519	53799	53435	50519	44685	30101	24268	21351	18162
75°	16758	19420	26075	28737	30068	29165	28737	27883	25746	24892	24464	22265
80°	7760	7979	8527	8746	8856	7992	8746	10255	14026	15534	16289	14712
85°	3916	3926	3953	3964	3970	3689	3964	4515	5892	6443	6718	6323

Luminanza [cd/m²]

Marca	: DLIGHT	Rendimento	: 100%
Codice	: Luminaria Brooklyn LED 60W (1).ldt	Rendimento punto luce	: 92.51 lm/W (A30)
Nome punto luce	: Luminaria Brooklyn LED 60W	Distrib. della luce	: asimmetrico
Accessori	: 1 x / 5689.5 lm	Angolo fascio luminoso	: 24.8° C0
Dimensioni	: L 610 mm x L 280 mm x H 70 mm		: 69.7° C90
Nome file	: Luminaria Brooklyn LED 60W (1).ldt		: 13.1° C180
			: 66.4° C270

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1.1 DLIGHT, Luminaria Brooklyn LED... (Luminaria Brook...)

1.1.5 Quota d'abbagliamento (UGR)

Riflessione										
Soffitto	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Pareti	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Suolo	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

Dimensioni ambiente		Vista in direzione C90					Vista in direzione C0				
x	y										
2H	2H	24.8	26.5	25.1	26.8	27.2	30.0	31.8	30.4	32.1	32.4
	3H	25.9	27.5	26.2	27.8	28.2	31.2	32.8	31.6	33.2	33.5
	4H	26.4	27.9	26.8	28.3	28.6	31.4	32.9	31.8	33.3	33.6
	6H	26.7	28.1	27.1	28.5	28.9	31.4	32.8	31.8	33.2	33.6
	8H	26.7	28.1	27.1	28.5	28.9	31.4	32.7	31.8	33.1	33.5
	12H	26.7	28.0	27.1	28.4	28.8	31.3	32.6	31.7	33.0	33.4
4H	2H	27.7	29.2	28.1	29.6	29.9	30.4	32.0	30.8	32.3	32.7
	3H	28.9	30.2	29.3	30.5	31.0	31.7	33.0	32.1	33.4	33.8
	4H	29.3	30.5	29.8	30.9	31.3	32.0	33.1	32.4	33.5	34.0
	6H	29.5	30.6	30.0	31.0	31.4	32.0	33.0	32.4	33.4	33.9
	8H	29.5	30.5	30.0	30.9	31.4	32.0	32.9	32.4	33.4	33.8
	12H	29.6	30.4	30.0	30.9	31.4	32.0	32.8	32.4	33.3	33.8
8H	4H	29.8	30.7	30.3	31.2	31.6	32.0	33.0	32.5	33.4	33.8
	6H	30.0	30.8	30.5	31.3	31.8	32.0	32.8	32.5	33.3	33.8
	8H	30.1	30.8	30.6	31.3	31.8	32.1	32.7	32.6	33.2	33.7
	12H	30.1	30.7	30.6	31.2	31.7	32.0	32.6	32.5	33.1	33.6
12H	4H	29.8	30.7	30.3	31.1	31.6	32.0	32.9	32.5	33.3	33.8
	6H	30.1	30.8	30.6	31.3	31.8	32.1	32.7	32.6	33.2	33.7
	8H	30.1	30.7	30.6	31.2	31.7	32.0	32.6	32.6	33.1	33.6

Distanza dei punti luce 0.25

Per mancanza di proprietà simmetriche, i valori si applicano unicamente alla direzione di vista.

Marca	: DLIGHT	Rendimento	: 100%
Codice	: Luminaria Brooklyn LED 60W (1).ldt	Rendimento punto luce	: 92.51 lm/W (A30)
Nome punto luce	: Luminaria Brooklyn LED 60W	Distrib. della luce	: asimmetrico
Accessori	: 1 x / 5689.5 lm	Angolo fascio luminoso	: 24.8° C0
Dimensioni	: L 610 mm x L 280 mm x H 70 mm		: 69.7° C90
Nome file	: Luminaria Brooklyn LED 60W (1).ldt		: 13.1° C180
			: 66.4° C270

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1.1 DLIGHT, Luminaria Brooklyn LED... (Luminaria Brook...)

1.1.6 Diagramma conico

CDL inadeguato per la rappresentazione conica

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1 Dati punti luce

1.2 DLIGHT, Proiettore LED SMD 80W... (Proiettore LED ...)

1.2.1 Pagina dati

Marca: DLIGHT

Proiettore LED SMD 80W 120lm/W.ltd

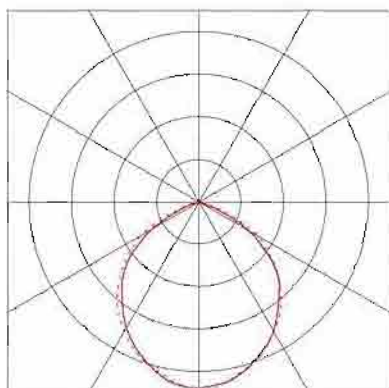
Proiettore LED SMD 80W 120lm/W

Dati punti luce

Rendimento punto luce : 100%
Rendimento punto luce : 123.76 lm/W
Classificazione : A50 ↓100.0% ↑0.0%
CIE Flux Codes : 55 89 100 100 100
UGR 4H 8H (20%, 50%, 70%)
C0 / C90 : 28.6 / 29.3
Reattore/Alimentatore :
Potenza del sistema : 78.59 W
Lunghezza : 285 mm
Larghezza : 235 mm
Altezza : 145 mm

Sorgenti:

Quantità : 1
Nome : 49
Temp. Di Colore : 6000
Flusso luminoso : 9726.6 lm
Resa cromatica : 0

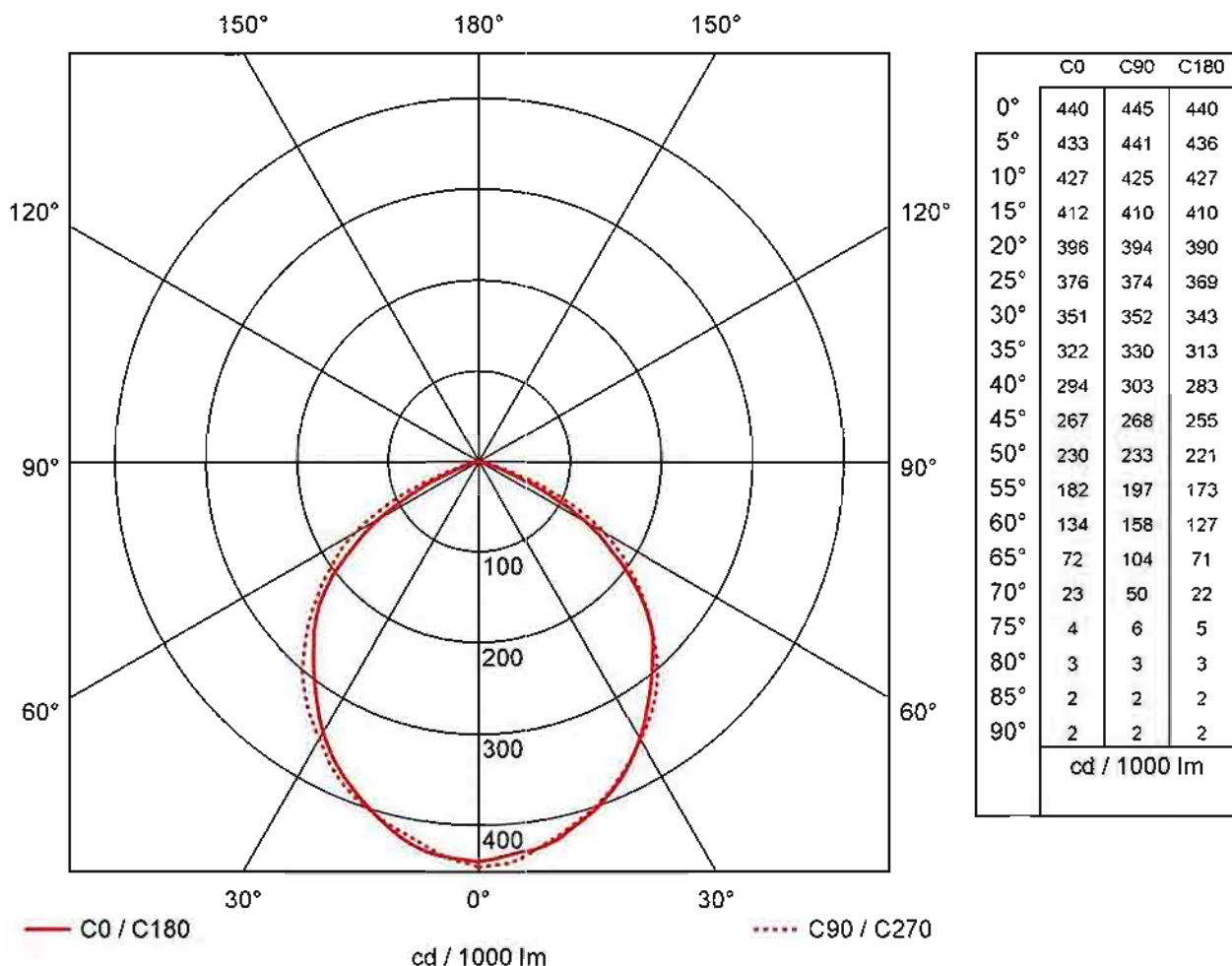


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1.2 DLIGHT, Proiettore LED SMD 80W... (Proiettore LED ...)

1.2.2 CDL



Marca : DLIGHT
 Codice : Proiettore LED SMD 80W 120lmW.lc
 Nome punto luce : Proiettore LED SMD 80W 120lmW
 Accessori : 1 x 49 / 9726.6 lm
 Dimensioni : L 285 mm x L 235 mm x H 145 mm
 Nome file : Proiettore LED SMD 80W 120lmW.lc

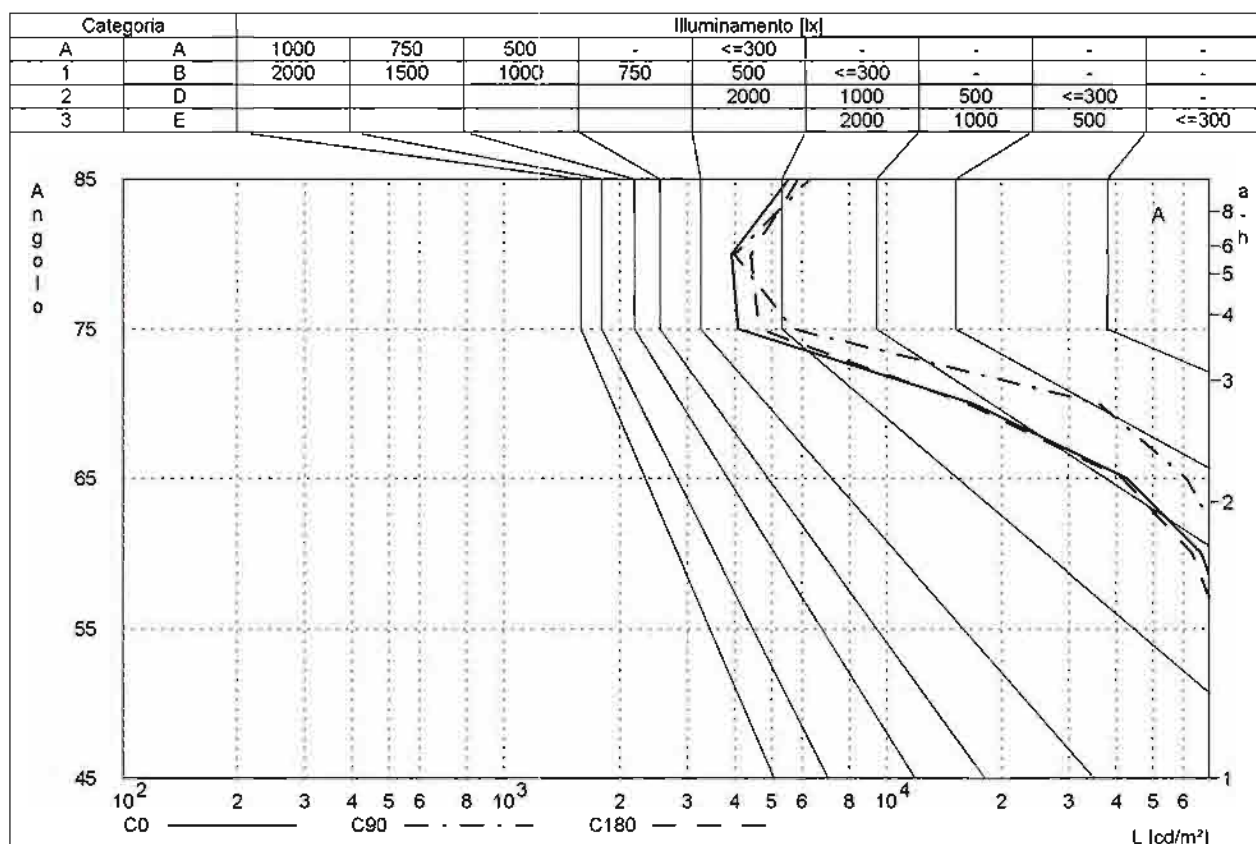
Rendimento : 100%
 Rendimento punto luce : 123.76 lm/W (A50)
 Distrib. della luce : asimmetrico
 Angolo fascio luminoso : 50.8° C0
 51.5° C90
 49.7° C180
 51.4° C270

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1.2 DLIGHT, Proiettore LED SMD 80W... (Proiettore LED ...)

1.2.3 Diagramma Söller



Marca	: DLIGHT	Rendimento	: 100%
Codice	: Proiettore LED SMD 80W 120lmW.Idi	Rendimento punto luce	: 123.76 lm/W (A50)
Nome punto luce	: Proiettore LED SMD 80W 120lm/W	Distrib. della luce	: asimmetrico
Accessori	: 1 x 49 / 9726.6 lm	Angolo fascio luminoso	: 50.8° C0
Dimensioni	: L 285 mm x L 235 mm x H 145 mm		: 51.5° C90
Nome file	: Proiettore LED SMD 80W 120lmW.Idi		: 49.7° C180
			: 51.4° C270

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1.2 DLIGHT, Proiettore LED SMD 80W... (Proiettore LED ...)

1.2.4 Tabella luminanza

	C0	C15	C30	C45	C60	C75	C90	C105	C120	C135	C150	C165
65°	42784	49116	57499	[67932]	67875	65643	61235	65244	66376	64630	49143	41485
70°	16900	23998	32787	43266	42396	40025	36152	40270	41660	40321	26231	18222
75°	4086	3518	5425	9807	11830	10454	5680	9558	10959	9884	5719	3968
80°	3924	3967	3894	3707	3546	3643	3997	3801	3824	4066	4196	4312
85°	5531	5561	5598	5640	5679	5900	6303	6153	6052	5999	5896	5852

	C180	C195	C210	C225	C240	C255	C270	C285	C300	C315	C330	C345
65°	41656	41592	48855	63445	62607	61822	61090	65451	67460	67119	53118	45006
70°	16294	18218	25738	38854	39081	37861	35194	40686	42139	39552	27311	19760
75°	4631	4012	5410	8827	10239	9296	6000	10617	10812	6585	4604	3771
80°	4415	4249	4084	3920	3686	3627	3741	3537	3491	3604	3798	3905
85°	5867	5779	5769	5837	5891	5967	6067	5880	5735	5632	5577	5544

Luminanza [cd/m²]

Marca	: DLIGHT	Rendimento	: 100%
Codice	: Proiettore LED SMD 80W 120lm/W.Idi	Rendimento punto luce	: 123.76 lm/W (A50)
Nome punto luce	: Proiettore LED SMD 80W 120lm/W	Distrib. della luce	: asimmetrico
Accessori	: 1 x 49 / 9726.6 lm	Angolo fascio luminoso	: 50.8° C0
Dimensioni	: L 285 mm x L 235 mm x H 145 mm		: 51.5° C90
Nome file	: Proiettore LED SMD 80W 120lm/W.Idi		: 49.7° C180
			: 51.4° C270

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1.2 DLIGHT, Proiettore LED SMD 80W... (Proiettore LED ...)

1.2.5 Quota d'abbagliamento (UGR)

Riflessione										
Soffitto	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Pareti	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Suolo	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

Dimensioni ambiente x y		Vista in direzione C90					Vista in direzione C0				
2H	2H	27.7	29.3	28.1	29.6	29.9	28.1	29.6	28.5	29.9	30.2
	3H	28.0	29.4	28.4	29.7	30.1	28.8	30.1	29.2	30.5	30.8
	4H	28.0	29.2	28.4	29.6	30.0	28.8	30.0	29.2	30.4	30.8
	6H	27.9	29.1	28.3	29.5	29.9	28.7	29.9	29.1	30.3	30.7
	8H	27.9	29.0	28.3	29.4	29.8	28.7	29.8	29.1	30.2	30.6
	12H	27.8	28.9	28.2	29.3	29.7	28.6	29.7	29.0	30.1	30.5
4H	2H	28.4	29.7	28.8	30.0	30.4	28.6	29.9	29.0	30.3	30.6
	3H	28.7	29.8	29.1	30.1	30.6	29.4	30.4	29.8	30.8	31.2
	4H	28.7	29.6	29.1	30.0	30.5	29.4	30.3	29.8	30.7	31.2
	6H	28.6	29.4	29.1	29.8	30.3	29.3	30.1	29.8	30.6	31.0
	8H	28.6	29.3	29.0	29.8	30.2	29.3	30.0	29.7	30.5	30.9
	12H	28.5	29.2	29.0	29.7	30.2	29.2	29.9	29.7	30.4	30.9
8H	4H	28.6	29.4	29.1	29.8	30.3	29.3	30.0	29.8	30.5	31.0
	6H	28.5	29.1	29.0	29.6	30.1	29.2	29.8	29.7	30.3	30.8
	8H	28.5	29.1	29.0	29.6	30.1	29.2	29.7	29.7	30.2	30.7
	12H	28.5	28.9	29.0	29.5	30.0	29.2	29.6	29.7	30.1	30.6
12H	4H	28.6	29.3	29.1	29.7	30.2	29.3	30.0	29.7	30.4	30.9
	6H	28.5	29.1	29.0	29.6	30.1	29.2	29.7	29.7	30.2	30.7
	8H	28.5	28.9	29.0	29.5	30.0	29.2	29.6	29.7	30.1	30.6

Distanza dei punti luce 0.25

Per mancanza di proprietà simmetriche, i valori si applicano unicamente alla direzione di vista.

Marca	: DLIGHT	Rendimento	: 100%
Codice	: Proiettore LED SMD 80W 120lm/W.Idi	Rendimento punto luce	: 123.76 lm/W (A50)
Nome punto luce	: Proiettore LED SMD 80W 120lm/W	Distrib. della luce	: asimmetrico
Accessori	: 1 x 49 / 9726.6 lm	Angolo fascio luminoso	: 50.8° C0
Dimensioni	: L 285 mm x L 235 mm x H 145 mm		: 51.5° C90
Nome file	: Proiettore LED SMD 80W 120lm/W.Idi		: 49.7° C180
			: 51.4° C270

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1.2 DLIGHT, Proiettore LED SMD 80W... (Proiettore LED ...)

1.2.6 Diagramma conico

CDL inadeguato per la rappresentazione conica

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1 Dati punti luce

1.3 DLIGHT, Proiettore LED SMD 150... (Proiettore LED ...)

1.3.1 Pagina dati

Marca: DLIGHT

Proiettore LED SMD 150W 120lmW (2).ldt

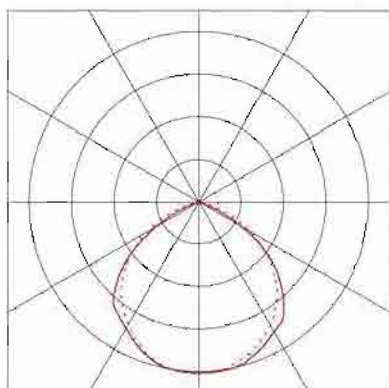
Proiettore LED SMD 150W 120lm/W

Dati punti luce

Rendimento punto luce : 100.1%
Rendimento punto luce : 115.31 lm/W
Classificazione : A50 ↓100.0% ↑0.0%
CIE Flux Codes : 55 89 99 100 100
UGR 4H 8H (20%, 50%, 70%)
C0 / C90 : 29.2 / 30.5
Reattore/Alimentatore :
Potenza del sistema : 143.06 W
Lunghezza : 335 mm
Larghezza : 235 mm
Altezza : 160 mm

Sorgenti:

Quantità : 1
Nome : 49
Temp. Di Colore : 6000
Flusso luminoso : 16480 lm
Resa cromatica : 0

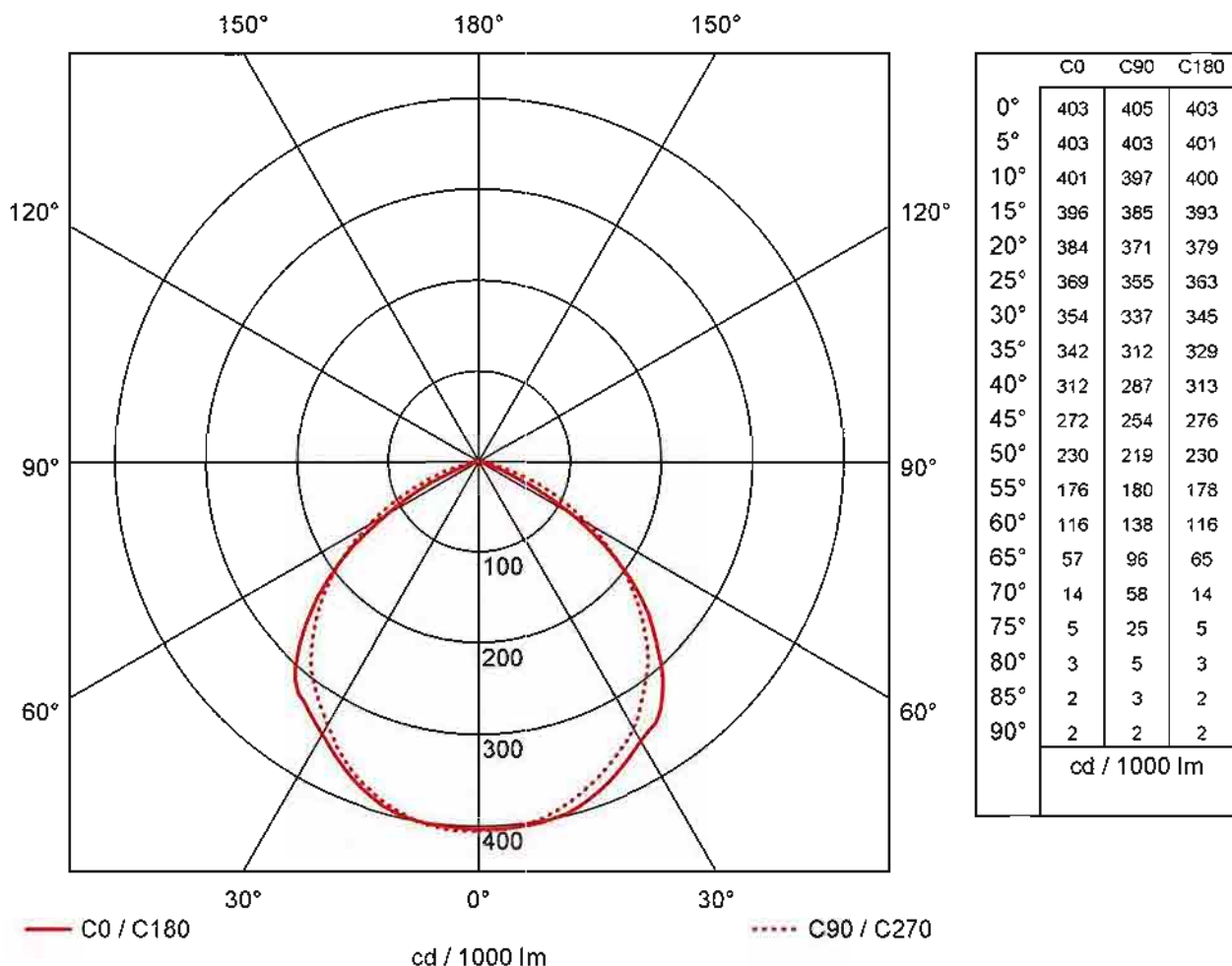


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1.3 DLIGHT, Proiettore LED SMD 150... (Proiettore LED ...)

1.3.2 CDL



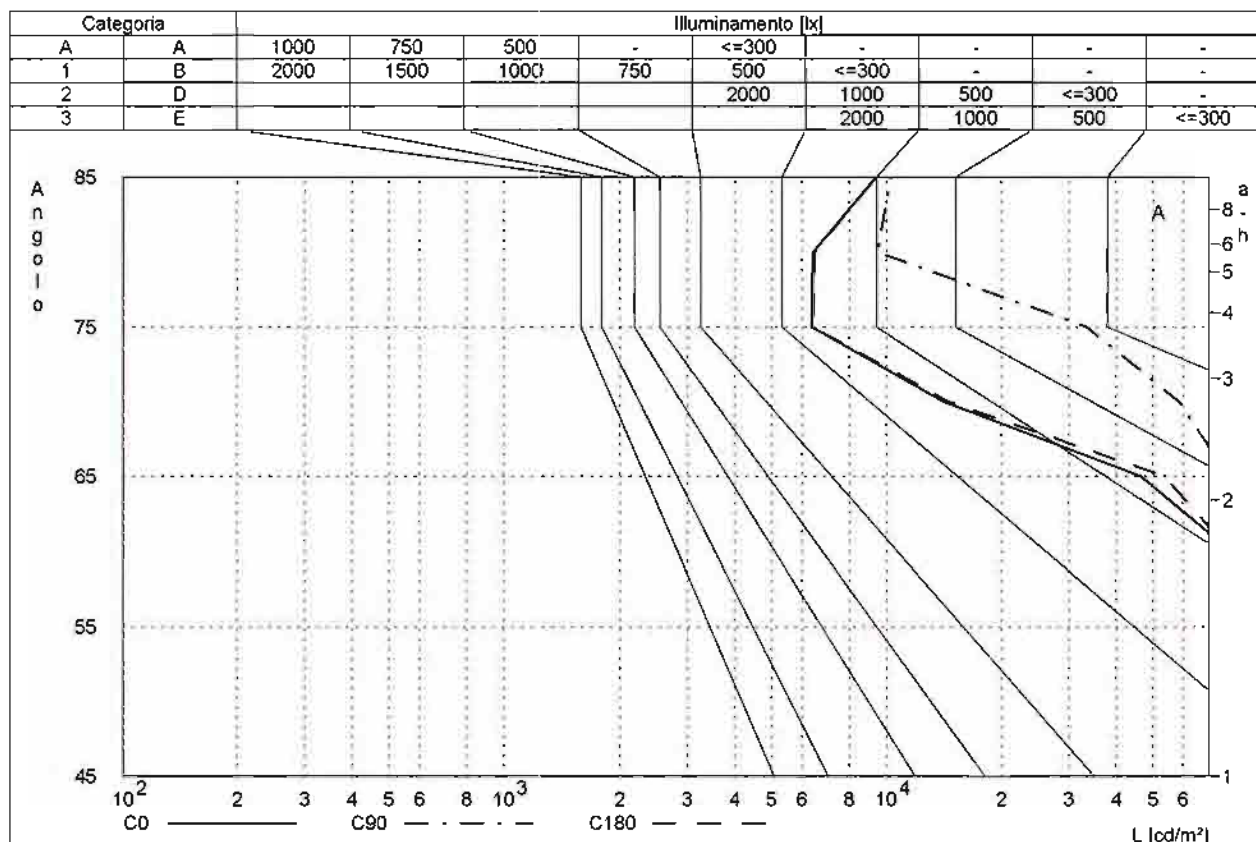
Marca	: DLIGHT	Rendimento	: 100.1%
Codice	: Proiettore LED SMD 150W 120lmW	Rendimento punto luce	: 115.31 lm/W (A50)
Nome punto luce	: Proiettore LED SMD 150W 120lm/W	Distrib. della luce	: asimmetrico
		Angolo fascio luminoso	: 52.6° C0
Accessori	: 1 x 49 / 16480 lm		52.1° C90
Dimensioni	: L 335 mm x L 235 mm x H 160 mm		52.6° C180
Nome file	: Proiettore LED SMD 150W 120lmW		52.3° C270

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1.3 DLIGHT, Proiettore LED SMD 150... (Proiettore LED ...)

1.3.3 Diagramma Söller



Marca	: DLIGHT	Rendimento	: 100.1%
Codice	: Proiettore LED SMD 150W 120lmW (	Rendimento punto luce	: 115.31 lm/W (A50)
Nome punto luce	: Proiettore LED SMD 150W 120lm/W	Distrib. della luce	: asimmetrico
Accessori	: 1 x 49 / 16480 lm	Angolo fascio luminoso	: 52.6° C0
Dimensioni	: L 335 mm x L 235 mm x H 160 mm		: 52.1° C90
Nome file	: Proiettore LED SMD 150W 120lmW (: 52.6° C180
			: 52.3° C270

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1.3 DLIGHT, Proiettore LED SMD 150... (Proiettore LED ...)

1.3.4 Tabella luminanza

	C0	C15	C30	C45	C60	C75	C90	C105	C120	C135	C150	C165
65°	46498	55829	65113	74350	84772	86391	79208	85861	85411	77859	66458	58400
70°	14122	18448	28853	45334	59434	63835	58537	64427	60334	46259	29456	18884
75°	6367	5988	8172	12918	29037	35896	33492	36325	30176	15045	8509	5635
80°	6411	6490	6737	7150	8716	9495	9489	9504	8740	7196	6774	6539
85°	9401	9503	9538	9507	9809	10062	10266	9927	9642	9411	9385	9379

	C180	C195	C210	C225	C240	C255	C270	C285	C300	C315	C330	C345
65°	53686	56181	63094	74425	84013	85878	80022 (87908)	86092	74573	62312	52953	
70°	14542	17753	27969	45187	59356	64341	60141	66180	60192	42177	28106	18754
75°	6422	5678	7822	12852	28690	35848	34325	37243	29554	11258	7669	6039
80°	6491	6354	6445	6765	8070	8990	9525	9238	8353	6870	6546	6393
85°	9393	9183	9061	9026	9251	9723	10442	9984	9579	9227	9315	9373

Luminanza [cd/m²]

Marca	: DLIGHT	Rendimento	: 100.1%
Codice	: Proiettore LED SMD 150W 120lmW (	Rendimento punto luce	: 115.31 lm/W (A50)
Nome punto luce	: Proiettore LED SMD 150W 120lm/W	Distrib. della luce	: asimmetrico
Accessori	: 1 x 49 / 16480 lm	Angolo fascio luminoso	: 52.6° C0
Dimensioni	: L 335 mm x L 235 mm x H 160 mm		: 52.1° C90
Nome file	: Proiettore LED SMD 150W 120lmW (: 52.6° C180
			: 52.3° C270

Oggetto : VERIFICA ECOSIDER SRL
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1.3 DLIGHT, Proiettore LED SMD 150... (Proiettore LED ...)

1.3.5 Quota d'abbagliamento (UGR)

Riflessione											
Soffitto	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3	
Pareti	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3	
Suolo	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
Dimensioni ambiente		Vista in direzione C90					Vista in direzione C0				
x	y										
2H	2H	28.7	30.2	29.0	30.5	30.8	29.0	30.5	29.4	30.8	31.2
	3H	28.8	30.1	29.2	30.5	30.8	29.8	31.2	30.2	31.5	31.9
	4H	28.7	30.0	29.1	30.3	30.7	30.0	31.2	30.4	31.6	32.0
	6H	28.7	29.9	29.1	30.2	30.6	30.0	31.1	30.4	31.5	31.9
	8H	28.6	29.8	29.0	30.1	30.5	29.9	31.0	30.3	31.4	31.8
	12H	28.6	29.7	29.0	30.0	30.5	29.9	30.9	30.3	31.3	31.7
4H	2H	29.2	30.4	29.5	30.8	31.1	29.5	30.7	29.9	31.1	31.5
	3H	29.3	30.4	29.7	30.7	31.2	30.4	31.4	30.8	31.8	32.2
	4H	29.3	30.2	29.7	30.6	31.1	30.6	31.5	31.0	31.9	32.3
	6H	29.2	30.0	29.6	30.5	30.9	30.5	31.3	31.0	31.8	32.2
	8H	29.2	29.9	29.6	30.4	30.8	30.5	31.2	30.9	31.7	32.1
	12H	29.1	29.8	29.6	30.3	30.8	30.5	31.2	30.9	31.6	32.1
8H	4H	29.2	30.0	29.7	30.4	30.9	30.4	31.2	30.9	31.7	32.1
	6H	29.1	29.8	29.6	30.2	30.7	30.4	31.0	30.9	31.5	32.0
	8H	29.1	29.7	29.7	30.2	30.7	30.4	31.0	30.9	31.5	32.0
	12H	29.1	29.6	29.6	30.1	30.6	30.4	30.8	30.9	31.3	31.9
12H	4H	29.2	29.9	29.7	30.3	30.8	30.4	31.1	30.9	31.6	32.1
	6H	29.1	29.7	29.7	30.2	30.7	30.4	31.0	30.9	31.5	32.0
	8H	29.1	29.6	29.6	30.1	30.6	30.4	30.8	30.9	31.3	31.8

Distanza dei punti luce 0.25

Per mancanza di proprietà simmetriche, i valori si applicano unicamente alla direzione di vista.

Marca	: DLIGHT	Rendimento	: 100.1%
Codice	: Proiettore LED SMD 150W 120lmW (	Rendimento punto luce	: 115.31 lm/W (A50)
Nome punto luce	: Proiettore LED SMD 150W 120lm/W	Distrib. della luce	: asimmetrico
Accessori	: 1 x 49 / 16480 lm	Angolo fascio luminoso	: 52.6° C0
Dimensioni	: L 335 mm x L 235 mm x H 160 mm		: 52.1° C90
Nome file	: Proiettore LED SMD 150W 120lmW (: 52.6° C180
			: 52.3° C270

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1 Dati punti luce

1.4 DLIGHT, Proiettore LED SMD 200... (Proiettore LED ...)

1.4.1 Pagina dati

Marca: DLIGHT

Proiettore LED SMD 200W 120lm/W (3).ldt

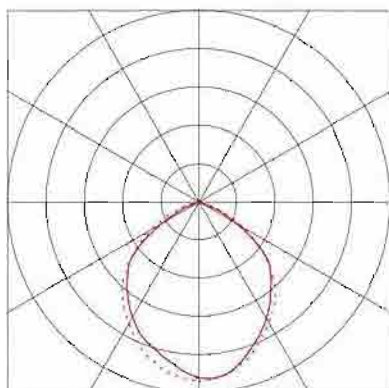
Proiettore LED SMD 200W 120lm/W

Dati punti luce

Rendimento punto luce : 100.1%
Rendimento punto luce : 118.03 lm/W
Classificazione : A50 ↓100.0% ↑0.0%
CIE Flux Codes : 57 90 99 100 100
UGR 4H 8H (20%, 50%, 70%)
C0 / C90 : 29.2 / 30.4
Reattore/Alimentatore :
Potenza del sistema : 209.56 W
Lunghezza : 382 mm
Larghezza : 284 mm
Altezza : 185 mm

Sorgenti:

Quantità : 1
Nome : 49
Temp. Di Colore : 6000
Flusso luminoso : 24709 lm
Resa cromatica : 0

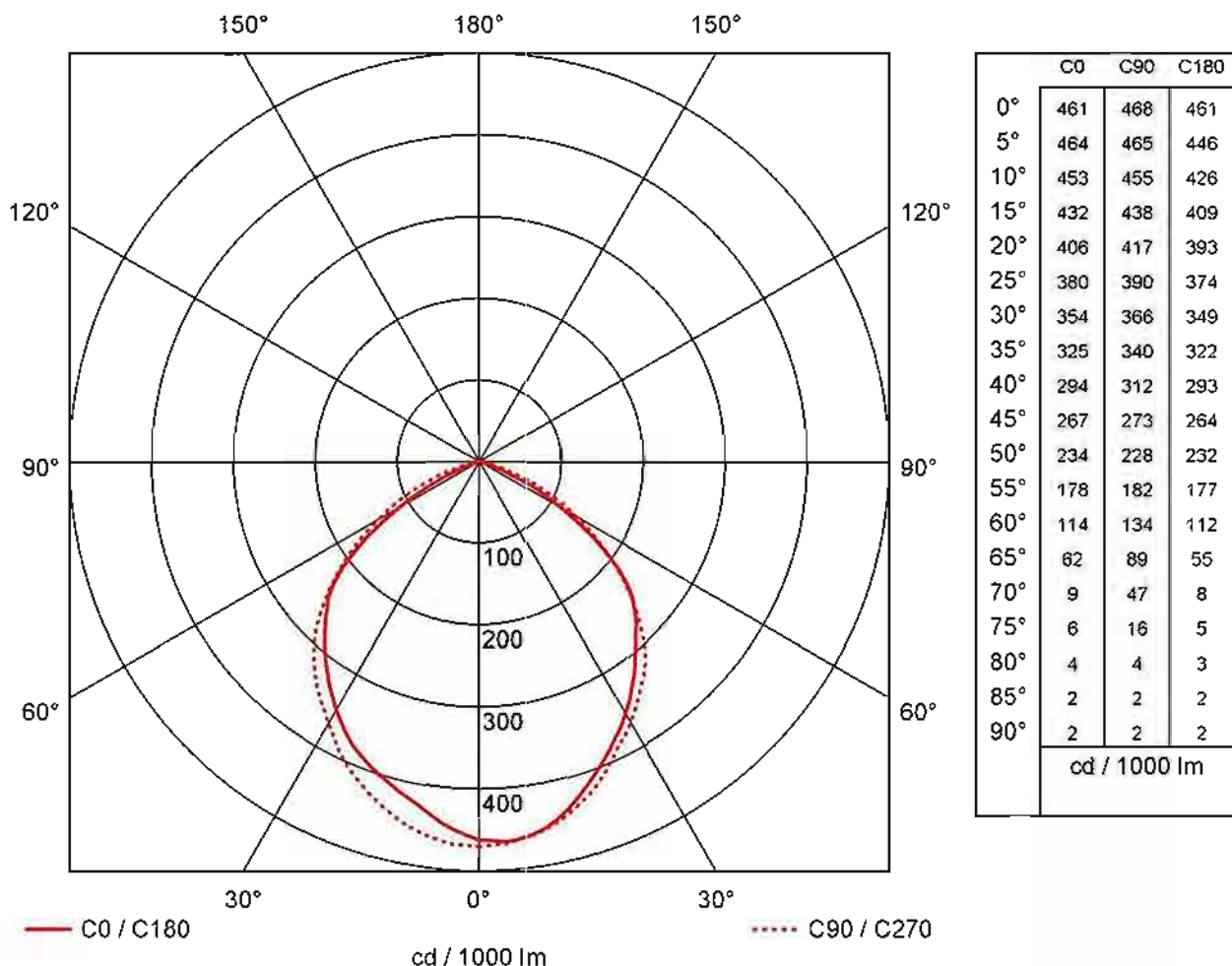


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1.4 DLIGHT, Proiettore LED SMD 200... (Proiettore LED ...)

1.4.2 CDL



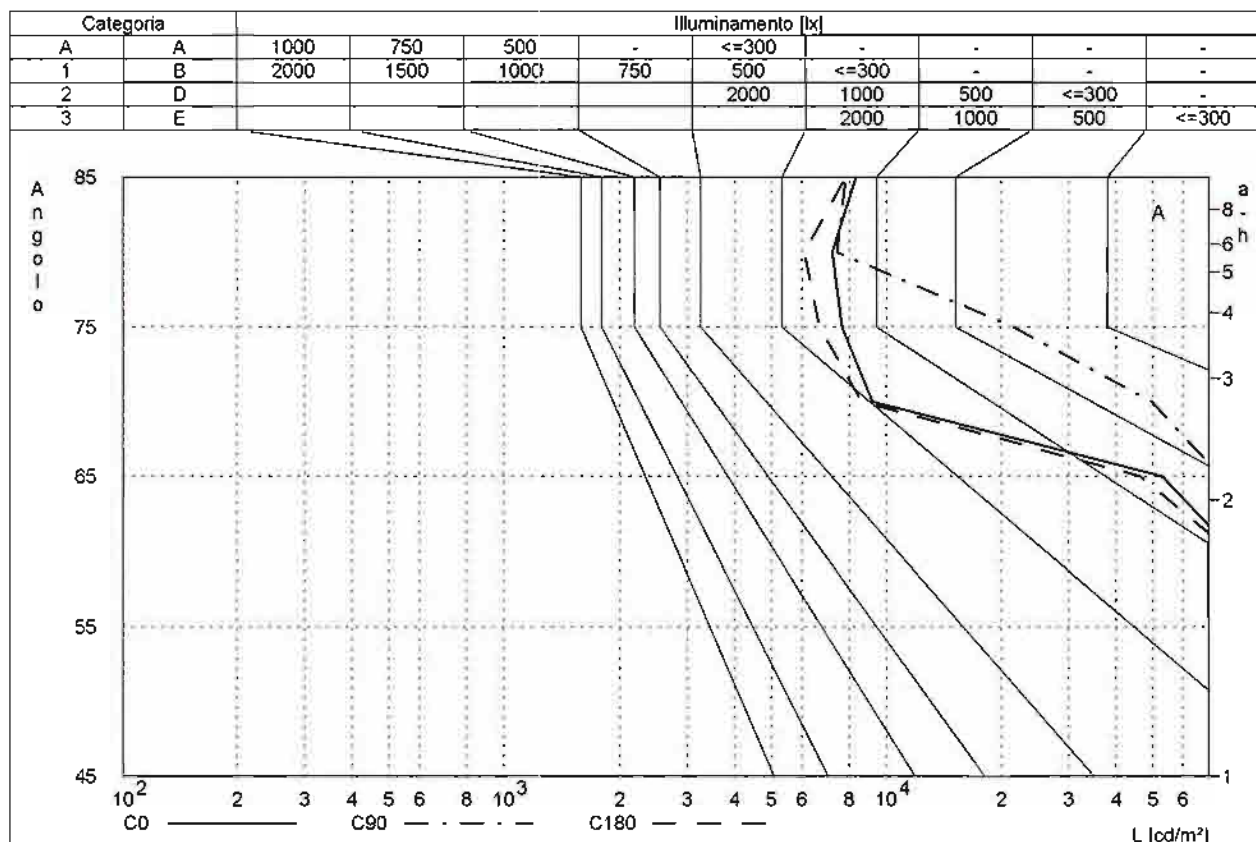
Marca	: DLIGHT	Rendimento	: 100.1%
Codice	: Proiettore LED SMD 200W 120lmW	Rendimento punto luce	: 118.03 lm/W (A50)
Nome punto luce	: Proiettore LED SMD 200W 120lm/W	Distrib. della luce	: asimmetrico
Accessori	: 1 x 49 / 24709 lm	Angolo fascio luminoso	: 49.9° C0
Dimensioni	: L 382 mm x L 284 mm x H 185 mm		: 49.3° C90
Nome file	: Proiettore LED SMD 200W 120lmW		: 49.6° C180
			: 50.1° C270

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1.4 DLIGHT, Proiettore LED SMD 200... (Proiettore LED ...)

1.4.3 Diagramma Söller



Marca	: DLIGHT	Rendimento	: 100.1%
Codice	: Proiettore LED SMD 200W 120lm/W (	Rendimento punto luce	: 118.03 lm/W (A50)
Nome punto luce	: Proiettore LED SMD 200W 120lm/W (	Distrib. della luce	: asimmetrico
Accessori	: 1 x 49 / 24709 lm	Angolo fascio luminoso	: 49.9° C0
Dimensioni	: L 382 mm x L 284 mm x H 185 mm		: 49.3° C90
Nome file	: Proiettore LED SMD 200W 120lm/W (: 49.6° C180
			: 50.1° C270

Oggetto : VERIFICA ECOSIDER SRL
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1.4 DLIGHT, Proiettore LED SMD 200... (Proiettore LED ...)

1.4.4 Tabella luminanza

	C0	C15	C30	C45	C60	C75	C90	C105	C120	C135	C150	C165
65°	52838	59571	67871	77736	75854	74984	75127	76001	74731	71319	59812	51503
70°	9197	16926	27237	40129	50078	53276	49723	53323	50075	39981	23743	13288
75°	7649	7465	7748	8498	20088	24430	21524	23277	18809	8122	7317	6839
80°	7220	7187	6838	6171	6556	6977	7434	6960	6455	5919	5959	6017
85°	8316	8309	8269	8198	8328	8205	7829	7739	7667	7614	7598	7665

	C180	C195	C210	C225	C240	C255	C270	C285	C300	C315	C330	C345
65°	46391	54552	64845	77270	80276	82341	83465	[84166]	83698	82061	69691	59950
70°	8617	13138	24347	42245	55248	60749	58750	62947	58097	44199	26802	15135
75°	6687	6099	7668	11393	26957	33379	30659	33332	27147	12103	8884	7400
80°	6096	5902	5894	6071	6842	7797	8936	8020	7389	7044	7461	7519
85°	7817	7674	7642	7721	7771	8439	9725	9223	8813	8496	8467	8407

Luminanza [cd/m²]

Marca	: DLIGHT	Rendimento	: 100.1%
Codice	: Proiettore LED SMD 200W 120lm/W (	Rendimento punto luce	: 118.03 lm/W (A50)
Nome punto luce	: Proiettore LED SMD 200W 120lm/W	Distrib. della luce	: asimmetrico
Accessori	: 1 x 49 / 24709 lm	Angolo fascio luminoso	: 49.9° C0
Dimensioni	: L 382 mm x L 284 mm x H 185 mm		: 49.3° C90
Nome file	: Proiettore LED SMD 200W 120lm/W (: 49.6° C180
			: 50.1° C270

Oggetto : VERIFICA ECOSIDER SRL
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1.4 DLIGHT, Proiettore LED SMD 200... (Proiettore LED ...)

1.4.5 Quota d'abbagliamento (UGR)

Riflessione										
Soffitto	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Pareti	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Suolo	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

Dimensioni ambiente x y		Vista in direzione C90					Vista in direzione C0				
2H	2H	28.7	30.2	29.1	30.6	30.9	29.1	30.6	29.4	30.9	31.2
	3H	28.9	30.2	29.3	30.6	30.9	29.8	31.2	30.2	31.5	31.8
	4H	28.8	30.1	29.2	30.4	30.8	29.9	31.2	30.3	31.5	31.9
	6H	28.8	29.9	29.2	30.3	30.7	29.9	31.1	30.3	31.4	31.8
	8H	28.7	29.8	29.1	30.2	30.6	29.8	31.0	30.3	31.3	31.7
	12H	28.7	29.7	29.1	30.1	30.5	29.8	30.9	30.2	31.2	31.7
4H	2H	29.2	30.5	29.6	30.8	31.2	29.5	30.8	29.9	31.1	31.5
	3H	29.4	30.4	29.8	30.8	31.2	30.3	31.4	30.7	31.8	32.2
	4H	29.4	30.3	29.8	30.7	31.1	30.5	31.4	30.9	31.8	32.3
	6H	29.3	30.1	29.7	30.5	31.0	30.4	31.2	30.9	31.7	32.1
	8H	29.2	30.0	29.7	30.4	30.9	30.4	31.1	30.9	31.6	32.1
	12H	29.2	29.9	29.7	30.3	30.9	30.4	31.1	30.9	31.5	32.0
8H	4H	29.3	30.0	29.8	30.5	30.9	30.4	31.1	30.9	31.6	32.0
	6H	29.2	29.8	29.7	30.3	30.8	30.3	30.9	30.8	31.4	31.9
	8H	29.2	29.7	29.7	30.3	30.7	30.3	30.9	30.8	31.4	31.9
	12H	29.2	29.6	29.7	30.1	30.6	30.3	30.7	30.8	31.2	31.8
12H	4H	29.3	29.9	29.7	30.4	30.9	30.4	31.0	30.8	31.5	32.0
	6H	29.2	29.7	29.7	30.2	30.7	30.3	30.9	30.8	31.4	31.9
	8H	29.2	29.6	29.7	30.1	30.6	30.3	30.7	30.8	31.2	31.8

Distanza dei punti luce 0.25

Per mancanza di proprietà simmetriche, i valori si applicano unicamente alla direzione di vista.

Marca	: DLIGHT	Rendimento	: 100.1%
Codice	: Proiettore LED SMD 200W 120lm/W (	Rendimento punto luce	: 118.03 lm/W (A50)
Nome punto luce	: Proiettore LED SMD 200W 120lm/W (	Distrib. della luce	: asimmetrico
Accessori	: 1 x 49 / 24709 lm	Angolo fascio luminoso	: 49.9° C0
Dimensioni	: L 382 mm x L 284 mm x H 185 mm		: 49.3° C90
Nome file	: Proiettore LED SMD 200W 120lm/W (: 49.6° C180
			: 50.1° C270

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1.4 DLIGHT, Proiettore LED SMD 200... (Proiettore LED ...)

1.4.6 Diagramma conico

CDL inadeguato per la rappresentazione conica

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2 Impianto esterno 2

2.1 Descrizione, Impianto esterno 2

2.1.1 Dati punti luce/Elementi dell' interno

Dati prodotti:

Tipo Num. Marca

DLIGHT		
5	1	Codice : Luminaria Brooklyn LED 60W (1).ldt
		Nome punto luce : Luminaria Brooklyn LED 60W
		Sorgenti : 1 x / 5689.5 lm
6	2	Codice : Proiettore LED SMD 80W 120lmW.ldt
		Nome punto luce : Proiettore LED SMD 80W 120lm/W
		Sorgenti : 1 x 49 / 9726.6 lm
7	4	Codice : Proiettore LED SMD 150W 120lmW (2).ldt
		Nome punto luce : Proiettore LED SMD 150W 120lm/W
		Sorgenti : 1 x 49 / 16480 lm
8	6	Codice : Proiettore LED SMD 200W 120lmW (3).ldt
		Nome punto luce : Proiettore LED SMD 200W 120lm/W
		Sorgenti : 1 x 49 / 24709 lm

Nr.	Centro			Angolo di rotazione			Coordinate destinazione		
	X [m]	Y [m]	Z [m]	Z [°]	C0 [°]	C90 [°]	Xa [m]	Ya [m]	Za [m]
Luminaria Brooklyn LED 60W Luminaria Brooklyn LED 60W (1).ldt									
8	15.30	88.64	6.00	281.37	12.68	-0.71	16.63	88.83	0.00
Proiettore LED SMD 80W 120lm/W Proiettore LED SMD 80W 120lmW.ldt									
7	32.86	10.93	5.01	55.11	-22.33	10.99	33.94	8.89	0.00
15	32.33	10.87	5.00	323.06	-13.64	0.00	31.60	9.90	0.00
Proiettore LED SMD 150W 120lm/W Proiettore LED SMD 150W 120lmW (2).ldt									
1	80.88	5.33	6.00	306.90	13.21	0.00	82.00	6.17	0.00
2	80.35	5.35	6.00	43.00	11.80	0.00	79.49	6.27	0.00
3	176.83	51.82	6.00	46.20	13.09	-0.40	175.85	52.82	0.00
4	177.38	51.83	6.00	315.14	13.70	0.00	178.42	52.87	0.00
Proiettore LED SMD 200W 120lm/W Proiettore LED SMD 200W 120lmW (3).ldt									
9	38.77	126.37	11.50	269.48	-12.37	0.01	36.25	126.39	0.00
10	38.78	117.25	11.50	269.17	-11.47	1.26	36.45	117.54	0.00
11	38.77	102.28	11.50	90.82	18.08	-2.51	35.00	102.75	0.00
12	38.80	198.15	11.50	45.32	11.73	-0.43	37.17	199.89	0.00
13	83.15	198.25	11.50	0.00	13.44	0.00	83.15	200.99	0.00
14	126.11	198.22	11.50	0.00	13.09	0.00	126.11	200.90	0.00

Elementi di creazione

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2 Impianto esterno 2

2.1 Descrizione, Impianto esterno 2

2.1.1 Dati punti luce/Elementi dell' interno

Superficie di misurazione virtuale

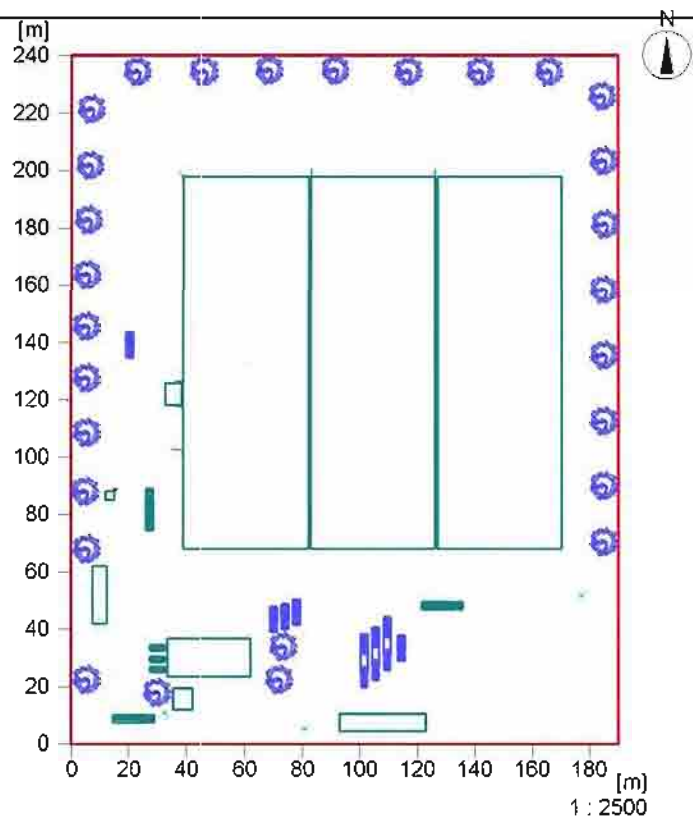
Nr.	xm[m]	ym[m]	zm[m]	Lungh.	Largh.	Angolo di rotazione		
						Asse Z	Asse L	Asse Q
Sup. ut. 1.1	0.00	0.00	1.25	190.00	240.00	0.00	0.00	0.00

Altro

Nr.	xm[m]	ym[m]	zm[m]	Lungh.	Largh.	Angolo di rotazione		
						Asse Z	Asse L	Asse Q
BLOCCO EDIFICI								
Pa 1	83.00	68.00	0.00	43.30	130.00	0.00	0.00	0.00
BLOCCO UFFICI								
Pa 2	33.50	23.50	0.00	28.50	13.30	0.00	0.00	0.00
UFFICI								
Pa 3	35.50	12.00	0.00	6.80	7.40	0.00	0.00	0.00
CABINA ELETTRICA								
Pa 4	38.50	118.00	0.00	5.70	7.60	90.00	0.00	0.00
CISTERNA GASOLIO								
Pa 5	12.00	85.00	0.00	3.00	3.00	0.00	0.00	0.00
BLOCCO PARCHEGGI COPERTI								
Pa 6	93.00	4.50	0.00	30.00	6.00	0.00	0.00	0.00
BLOCCO SERVIZI E SPOGLIATOI								
Pa 7	7.50	62.00	0.00	5.00	20.00	270.00	0.00	0.00
Pa 8	14.74	88.53	0.00	0.20	0.20	0.00	0.00	0.00
BLOCCO EDIFICI								
Pa 9	39.00	68.00	0.00	43.30	130.00	0.00	0.00	0.00
BLOCCO EDIFICI								
Pa 10	127.00	68.00	0.00	43.30	130.00	0.00	0.00	0.00
Pa 11	32.50	11.00	0.00	0.20	0.20	0.00	0.00	0.00
Pa 12	80.50	5.00	0.00	0.20	0.20	0.00	0.00	0.00
Pa 13	177.00	51.50	0.00	0.20	0.20	0.00	0.00	0.00

2.1 Descrizione, Impianto esterno 2

2.1.2 Pianta



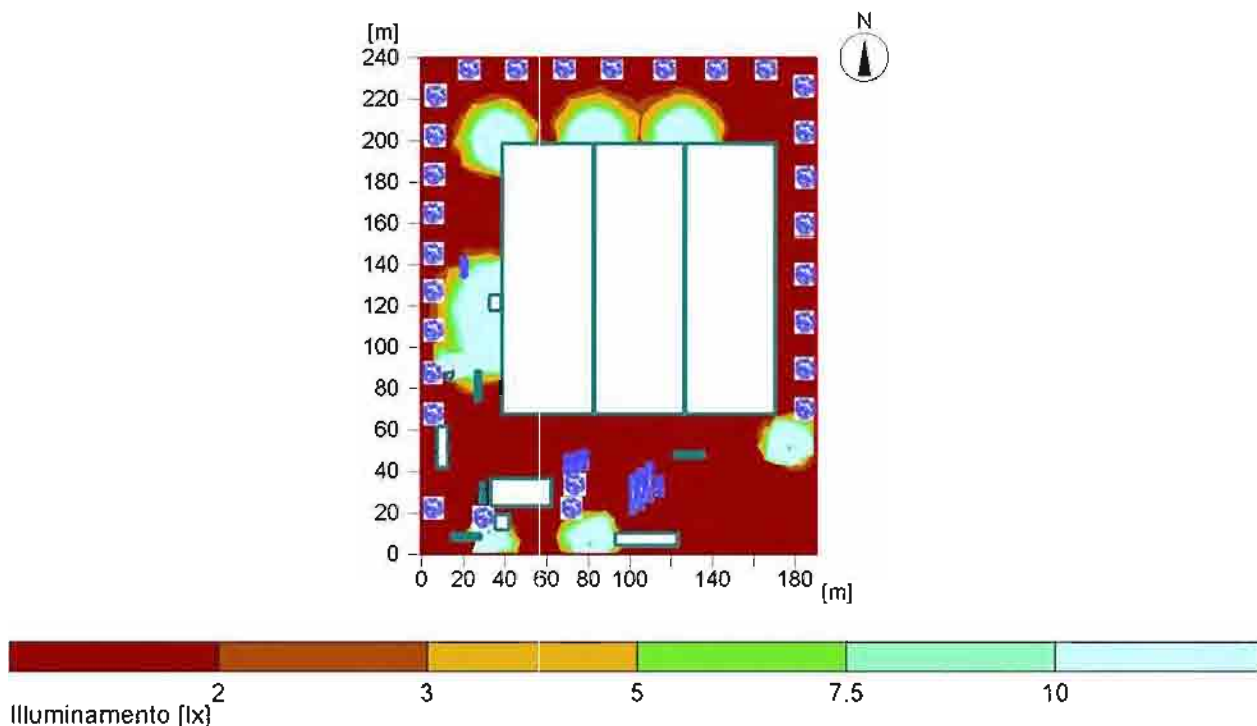
Oggetto : VERIFICA ECOSIDER SRL
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2 Impianto esterno 2

2.2 Riepilogo, Impianto esterno 2

2.2.1 Panoramica risultato, Area di valutazione 1



Generale

Algoritmo di calcolo utilizzato:
 Fattore di manut.

Percentuale indiretta media
 0.80

Flusso luminoso totale di tutte le lampade
 Potenza totale
 Potenza totale per superficie (45600.00 m²)

239316.703 lm
 2048.3 W
 0.04 W/m² (0.98 W/m²/100lx)

Area di valutazione 1

Superficie utile 1.1

Profilo utente: Siti industriali e aree di stoccaggio

Gestione di breve termine di unità di grandi dimensioni e delle materie prime, carico e scarico di merci solide sfuse (Ra >20.00)

	Orizzontale	
Em	4.6 lx	(>= 15 lx)
Emin	0 lx	
Emin/Eav (Uo)	---	(>= 0.25)
Emin/Emax (Ud)	---	
Posizione	1.25 m	

Tipo Num. Marca

DLIGHT

5	1	Codice	: Luminaria Brooklyn LED 60W (1).ldt
		Nome punto luce	: Luminaria Brooklyn LED 60W
		Sorgenti	: 1 x / 5689.5 lm




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2 Impianto esterno 2

2.2 Riepilogo, Impianto esterno 2

2.2.1 Panoramica risultato, Area di valutazione 1

6	2	Codice	: Proiettore LED SMD 80W 120lm/W.Idt
		Nome punto luce	: Proiettore LED SMD 80W 120lm/W
		Sorgenti	: 1 x 49 / 9726.6 lm
7	4	Codice	: Proiettore LED SMD 150W 120lm/W (2).Idt
		Nome punto luce	: Proiettore LED SMD 150W 120lm/W
		Sorgenti	: 1 x 49 / 16480 lm
8	6	Codice	: Proiettore LED SMD 200W 120lm/W (3).Idt
		Nome punto luce	: Proiettore LED SMD 200W 120lm/W
		Sorgenti	: 1 x 49 / 24709 lm

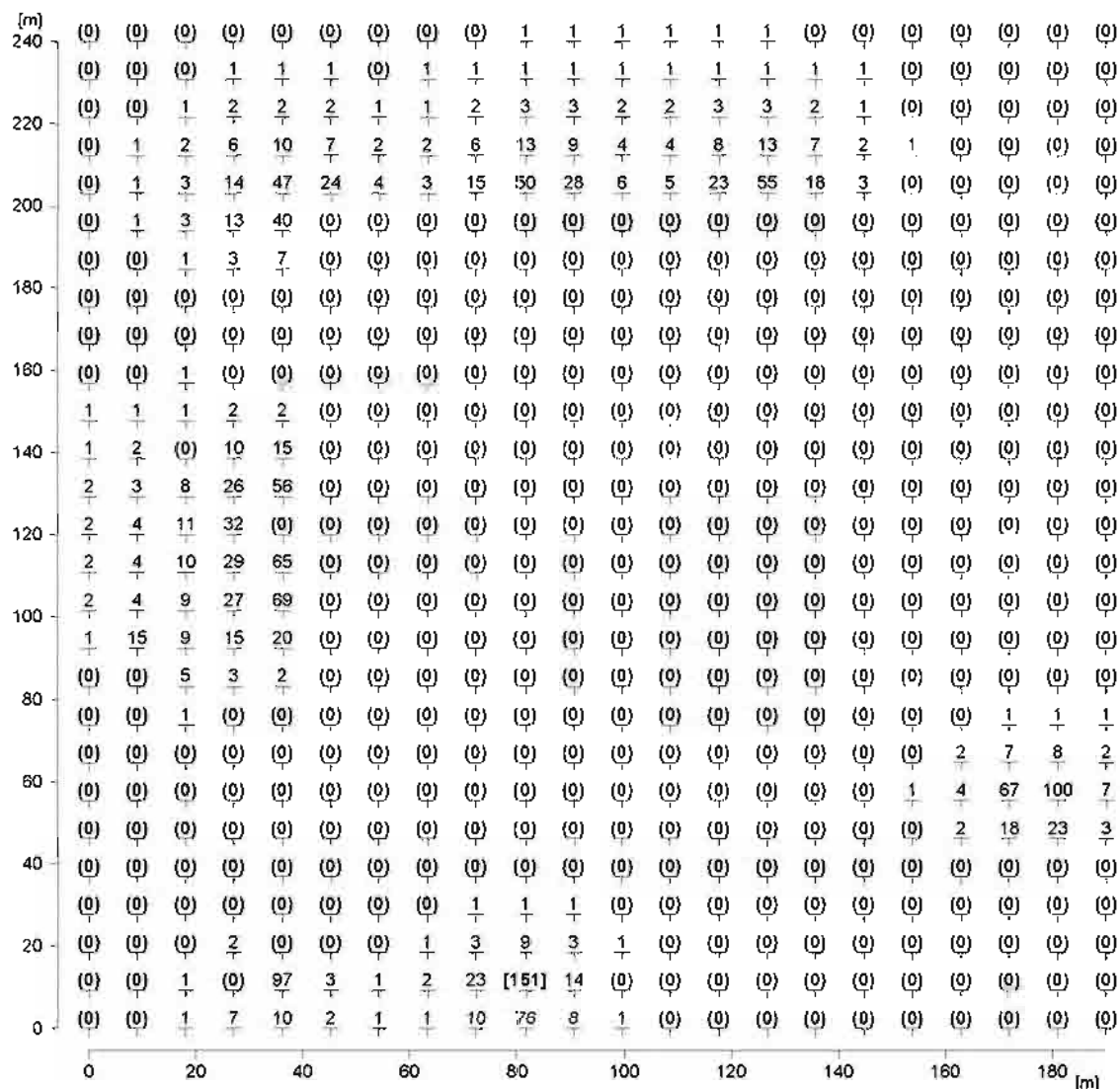
Oggetto : VERIFICA ECOSIDER SRL
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2 Impianto esterno 2

2.3 Risultati calcolo, Impianto esterno 2

2.3.1 Tabella, Suolo (E)



Illuminamento medio : 3 lx
 Illuminamento minimo : 0 lx
 Illuminamento massimo : 151 lx
 Uniformità Uo : ---
 Uniformità Ud : ---

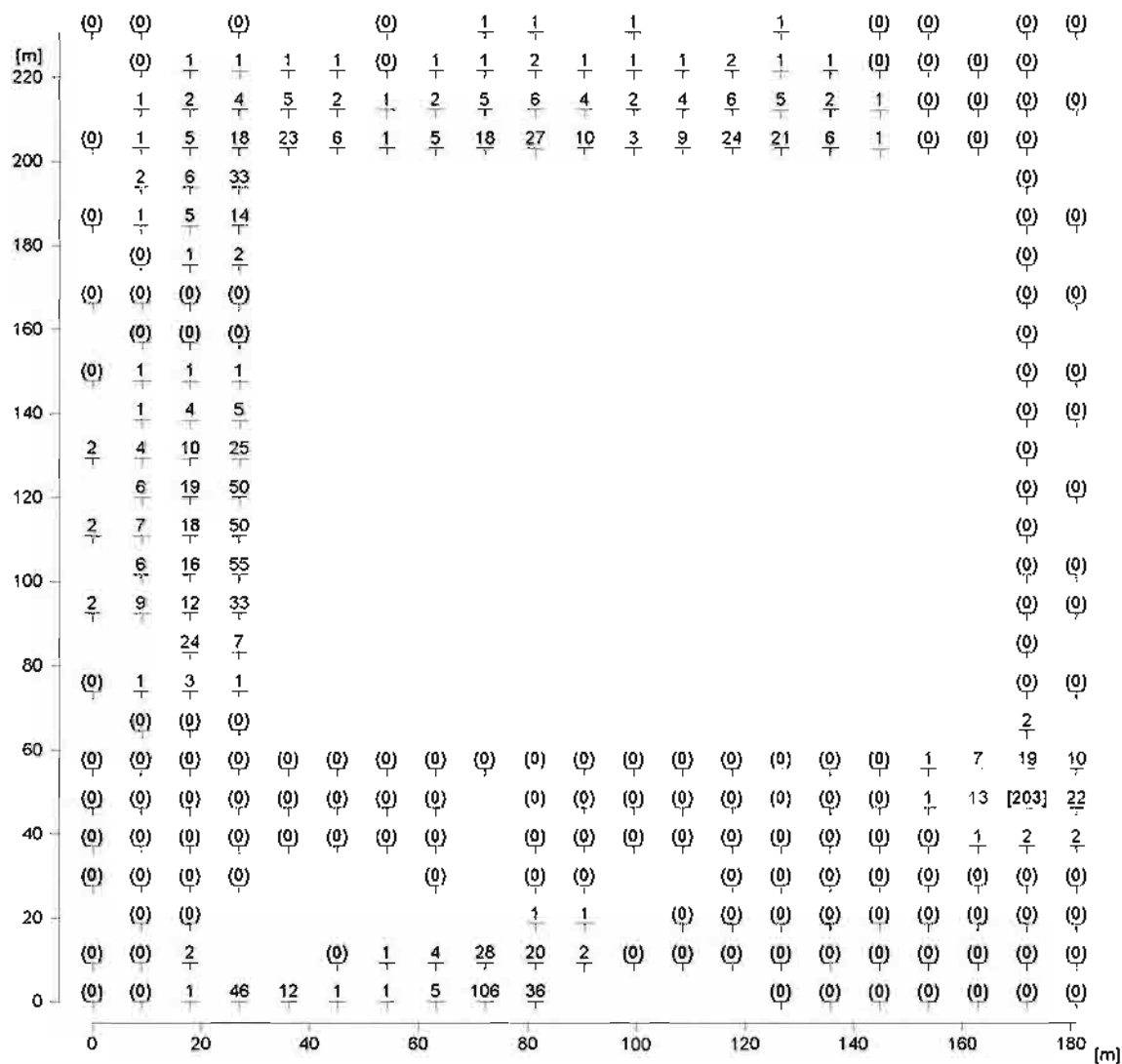


Oggetto : VERIFICA ECOSIDER SRL
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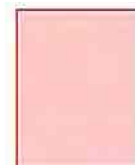
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2.3 Risultati calcolo, Impianto esterno 2

2.3.2 Tabella, Superficie utile 1.1 (E)



Altezza del piano di riferimento : 1.25 m
 Illuminamento medio : E_m : 5 lx
 Illuminamento minimo : E_{min} : 0 lx
 Illuminamento massimo : E_{max} : 203 lx
 Uniformità U_o : E_{min}/E_m : ---
 Uniformità U_d : E_{min}/E_{max} : ---



Oggetto : VERIFICA ECOSIDER SRL
 Impianto : ZONA ESTERNI PERIMETRALI
 Numero progetto : 707/17
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2.3 Risultati calcolo, Impianto esterno 2

2.3.3 Tabella, Suolo (L)

240	0.01	0.01	0.02	0.02	0.02	0.02	0.01	0.02	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.02	0.01	(0)	(0)	(0)	(0)
	0.01	0.02	0.03	0.04	0.04	0.03	0.03	0.03	0.05	0.07	0.07	0.06	0.06	0.06	0.07	0.05	0.04	0.02	0.01	(0)	(0)	(0)
220	0.02	0.03	0.06	0.11	0.15	0.12	0.05	0.07	0.14	0.21	0.18	0.13	0.13	0.17	0.21	0.14	0.08	0.03	0.01	(0)	(0)	(0)
	0.02	0.05	0.14	0.38	0.63	0.47	0.13	0.14	0.4	0.82	0.59	0.27	0.25	0.54	0.84	0.44	0.16	0.03	0.01	(0)	(0)	(0)
200	0.03	0.07	0.22	0.89	3	1.54	0.28	0.18	0.93	3.19	1.78	0.4	0.32	1.44	3.48	1.13	0.2	0.03	(0)	(0)	(0)	(0)
	0.02	0.05	0.2	0.83	2.57	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
180	0.01	0.02	0.06	0.2	0.44	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	0.01	0.01	0.01	0.01	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
160	0.02	0.03	0.03	0.03	0.01	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	0.04	0.06	0.07	0.15	0.12	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
140	0.07	0.1	(0)	0.62	0.96	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	0.1	0.2	0.52	1.63	3.55	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
120	0.12	0.24	0.67	2.06	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	0.12	0.23	0.64	1.87	4.16	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
100	0.1	0.23	0.55	1.7	4.39	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	0.07	0.96	0.57	0.96	1.26	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
80	0.02	(0)	0.31	0.2	0.13	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	0.01	0.01	0.01
	0.01	0.03	0.04	0.02	0.01	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	0.06	0.06	0.04
60	0.01	0.01	0.01	0.01	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	0.01	0.03	0.1	0.45	0.54	0.15
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	0.01	0.03	0.24	4.24	6.36	0.44
40	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	0.01	0.1	1.12	1.46	0.16	(0)
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	0.01	0.01	0.01	0.01	(0)	(0)	(0)	(0)	(0)	(0)	0.01	0.01	(0)	(0)
20	(0)	(0)	0.01	0.13	(0)	(0)	0.02	0.06	0.21	0.57	0.18	0.05	0.02	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	(0)	(0)	0.05	(0)	6.15	0.21	0.04	0.12	1.44	9.61	0.89	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
0	(0)	(0)	0.07	0.46	0.61	0.14	0.04	0.07	0.66	4.86	0.49	0.06	0.01	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

Luminanza media Lm : 0.18 cd/m²
 Luminanza minima Lmin : 0 cd/m²
 Luminanza massima Lmax : 9.61 cd/m²

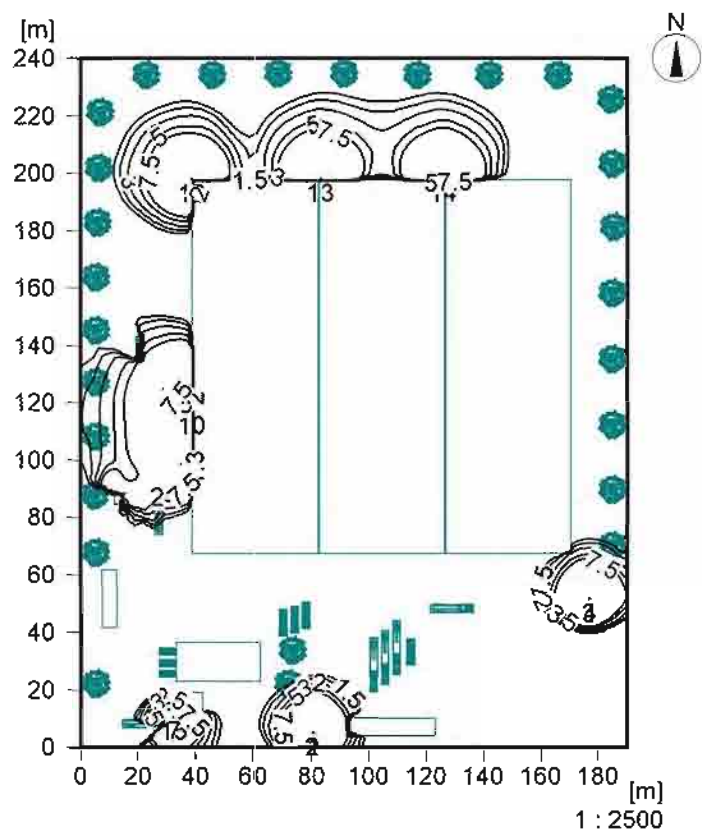


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2.3 Risultati calcolo, Impianto esterno 2

2.3.4 Rappresentazione isolinee, Suolo (E)



Illuminamento [lx]

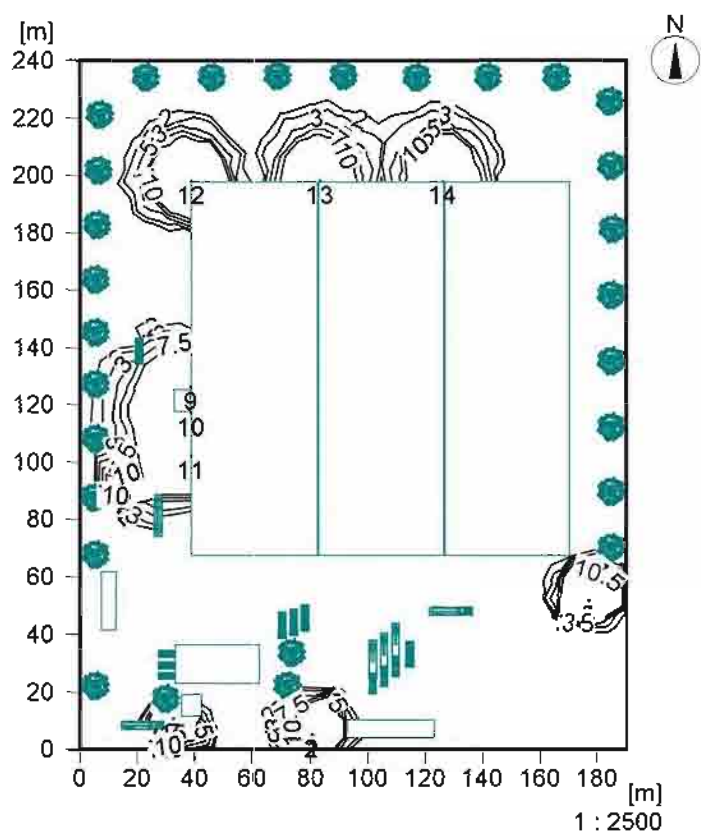
Illuminamento medio	Em	: 3 lx
Illuminamento minimo	Emin	: 0 lx
Illuminamento massimo	Emax	: 151 lx
Uniformità Uo	Emin/Em	: —
Uniformità Ud	Emin/Emax	: —

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2.3 Risultati calcolo, Impianto esterno 2

2.3.5 Rappresentazione isolinee, Superficie utile 1.1 (E)



Illuminamento [lx]

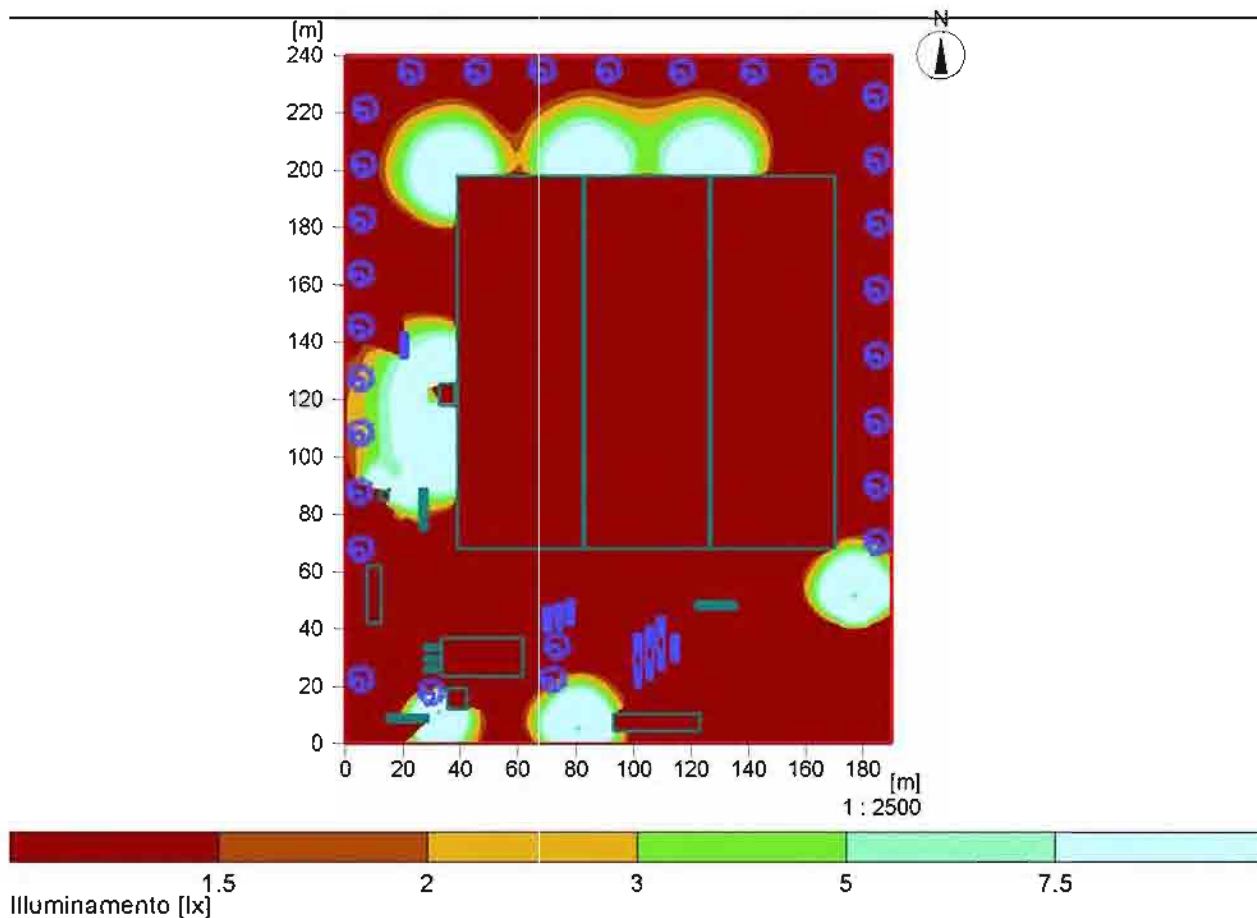
Altezza del piano di riferimento	:	1.25 m
Illuminamento medio	Em	: 5 lx
Illuminamento minimo	Emin	: 0 lx
Illuminamento massimo	Emax	: 203 lx
Uniformità Uo	Emin/Em	: —
Uniformità Ud	Emin/Emax	: —

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2.3 Risultati calcolo, Impianto esterno 2

2.3.6 Falsi Colori, Suolo (E)



Illuminamento medio
Illuminamento minimo
Illuminamento massimo
Uniformità U_o
Uniformità U_d

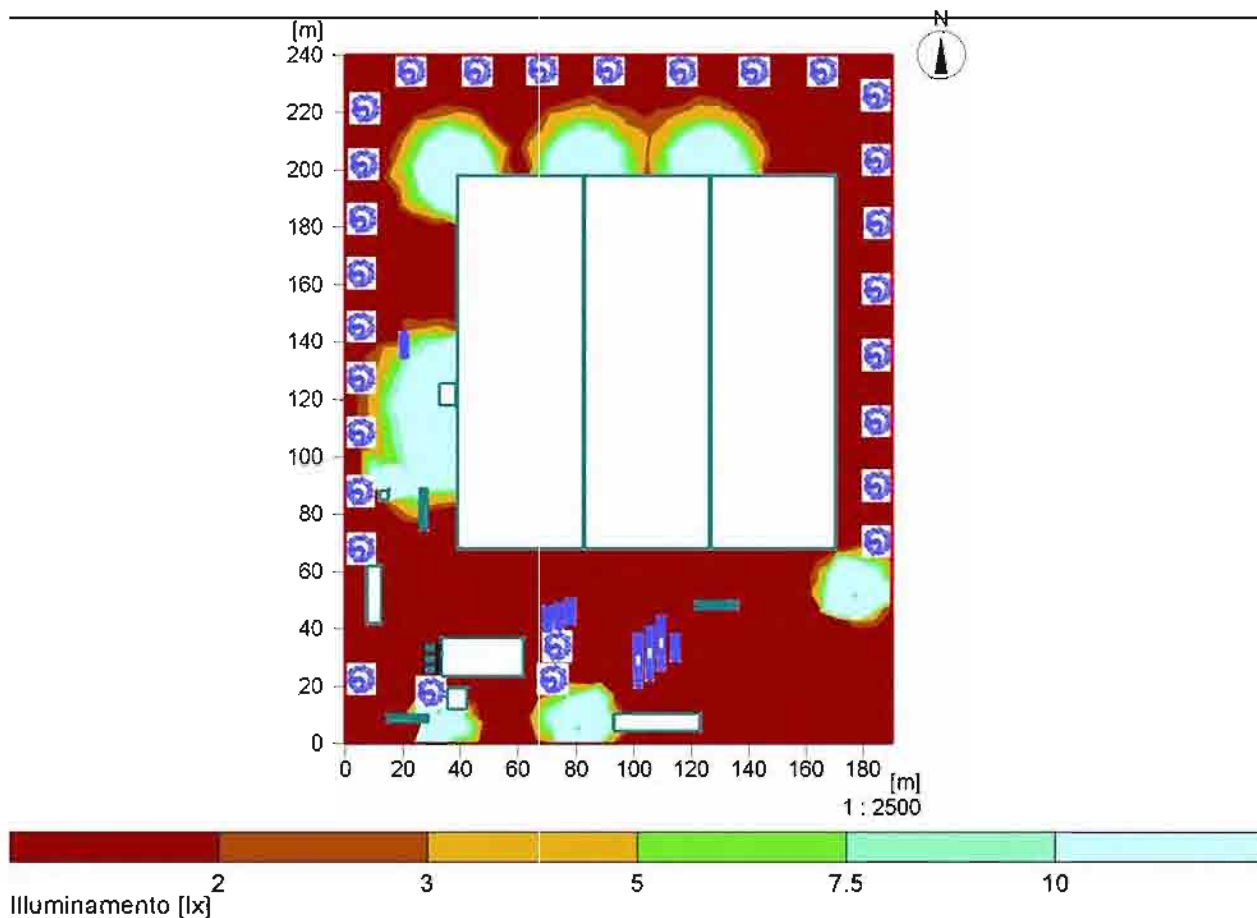
Em : 3 lx
E_{min} : 0 lx
E_{max} : 151 lx
E_{min}/E_m : ---
E_{min}/E_{max} : ---

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2.3 Risultati calcolo, Impianto esterno 2

2.3.7 Falsi Colori, Superficie utile 1.1 (E)



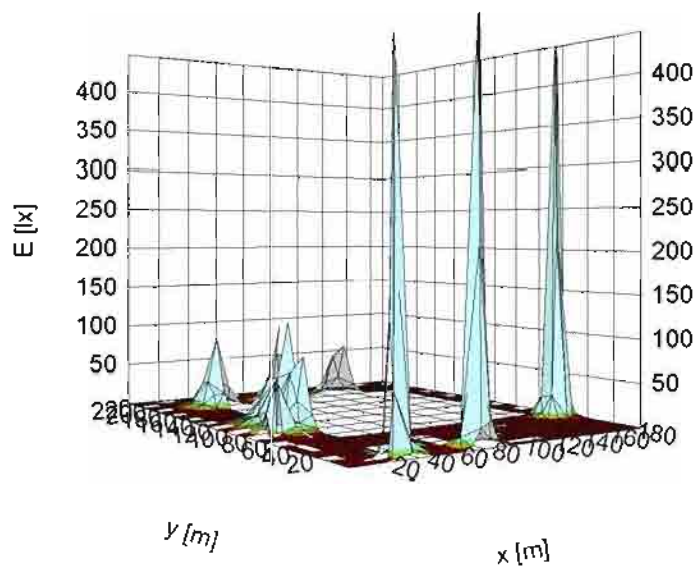
Altezza del piano di riferimento		: 1.25 m
Illuminamento medio	Em	: 5 lx
Illuminamento minimo	Emin	: 0 lx
Illuminamento massimo	Emax	: 203 lx
Uniformità Uo	Emin/Em	: ---
Uniformità Ud	Emin/Emax	: ---

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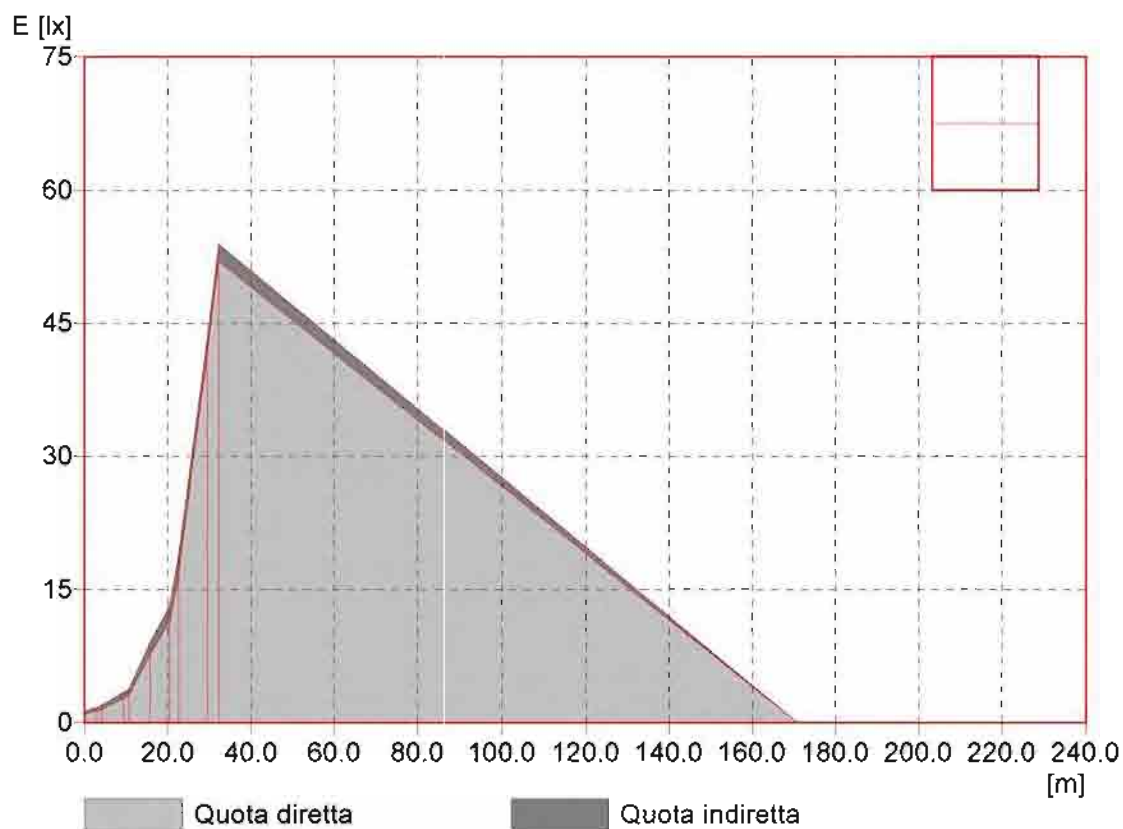
2.3 Risultati calcolo, Impianto esterno 2

2.3.8 Montagne 3D, Superficie utile 1.1 (E)



2.3 Risultati calcolo, Impianto esterno 2

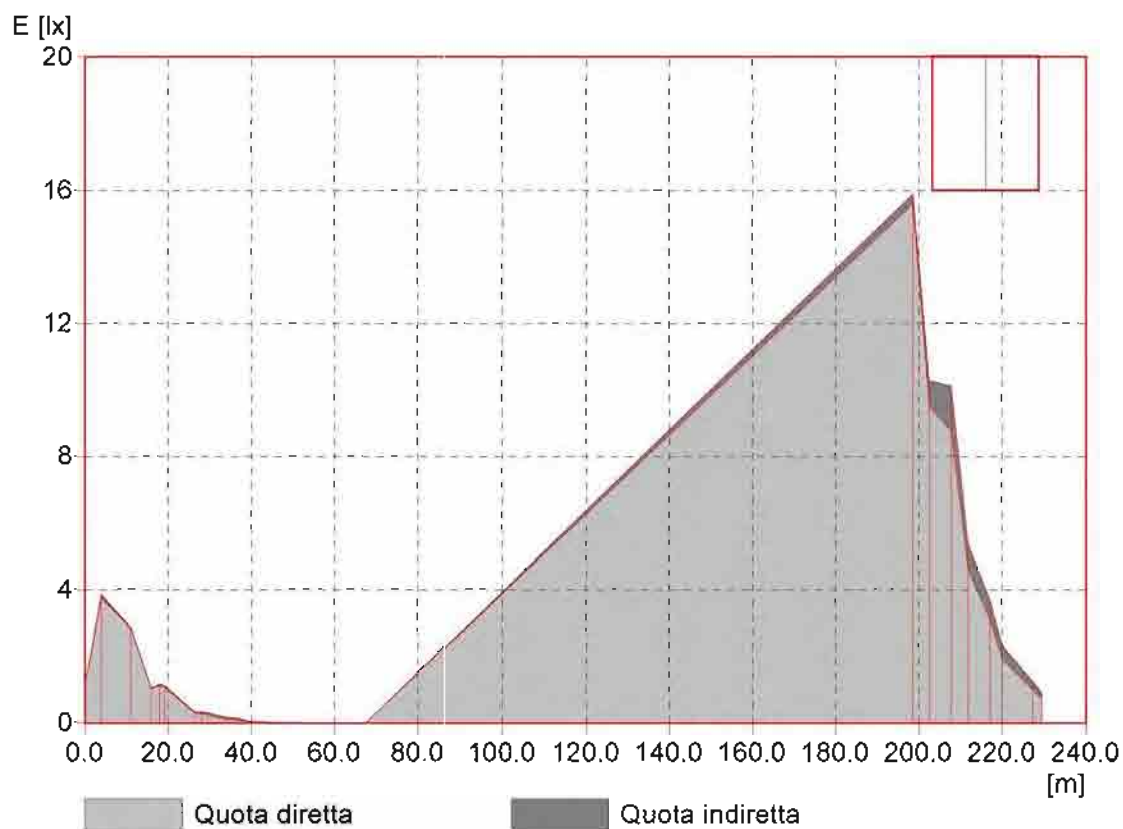
2.3.9 Sezione longitudinale, Superficie utile 1.1 (E)



Sezione longitudinale con $y = 120.00$ m

2.3 Risultati calcolo, Impianto esterno 2

2.3.10 Sezione trasversale Superficie utile 1.1 (E)



Sezione trasversale con x = 95.00 m

DICHIARAZIONE DI CONFORMITA' DEL PROGETTO ILLUMINOTECNICO ALLE NORME VIGENTI

La sottoscritta CIGIOTTI SIMONETTA nata a Milano il 25.02.1967
con studio professionale in Via Divisione Folgore 31 – 35141 Padova (PD),
iscritta all'Ordine degli Architetti Pianificatori Paesaggisti e Conservatori della Provincia di
Padova al n. 2014, partita IVA 03803130289 progettista dell'impianto di illuminazione esterna
dell'Azienda Meccanica ECO SIDER SRL sita in Via Del Lavoro, 2 nel Comune di Dolo

DICHIARA

sotto la propria responsabilità che l'impianto è stato progettato in conformità alla legge Regionale del Veneto del 07/08/2009 N. 17 norme per il contenimento dell'inquinamento luminoso, il risparmio energetico nell'illuminazione per esterni e per la tutela dell'ambiente e dell'attività svolta dagli osservatori astronomici. Norma UNI 12464-2 Norma UNI EN 13201-2 Norma UNI EN 12193 avendo in particolare:

- rispettato le indicazioni tecniche della Norma EN 12464-2 UNI EN 13201-2 Norma UNI EN 12193 applicabile all'impiego specifico e quindi aver realizzato una progetto a regola d'arte
- corredato la presente dichiarazione dei calcoli illuminotecnici comprensivi dei dati fotometrici dei corpi illuminanti e di eventuali iso-illuminamenti, allegati alla presente.

DECLINA

- ogni responsabilità per sinistri a persone o cose derivanti da una esecuzione sommaria e non realizzata con i dispositivi previsti nel progetto illuminotecnica
- ogni responsabilità, qualora dopo averlo segnalato alla società installatrice, la stessa proceda comunque da una scorretta installazione dei corpi illuminanti.

Data 14/07/2017

Il progettista

Simonetta Cigolotti



The image shows a handwritten signature in black ink over a blue circular professional stamp. The stamp contains the text: 'ORDINE DEGLI ARCHITETTI, PIANIFICATORI, PAESAGGISTI E CONSERVATORI DELLA PROVINCIA DI PADOVA', 'SIMONETTA CIGIOTTI', and 'n° 2014'.

PROIETTORI LED per ESTERNI

Proiettore LED SMD 150W 120 lm/W



SCHEDA TECNICA

Potenza	150 W
Alimentazione	220-240V AC
Multitensione	85-265V AC
Frequenza	50-60 Hz
Intensità	0.662 A
Flusso Luminoso	15898 lm
Rendimento LED	120 lm/W
Efficienza Luminosa	108 lm/W
Fascio Luminoso	120°
CRI	85
Fattore di Potenza	0.95
Protezione IP	IP66
Protezione IK	IK08
Classe	I
Tipo di LED	Epistar-SMD2835
Numero di LED	360
Durata	30.000 ore
T° Amb Funzionamento	-20°C~+45°C
Dimensioni	335x235x160 mm
Materiale del Corpo	Alluminio/Cristallo
Diffusore	Trasparente
Certificati	CE & RoHS

DESCRIZIONE DEL PRODOTTO

Proiettore LED Epistar orientabile con il cornice magro ha una potenza di 150W, una alimentazione di AC 85-265V, un'efficienza di 120lm/W, una lente LED SMD e una luminosità di 15898 lm..

Il suo grado di protezione IP66 lo rende ideale per uso esterno.

Il suo indice di resa cromatica (CRI) è Ra>85, e ha una durata stimata di più di 30.000 ore.

È realizzato in alluminio e vetro. Con accensione immediata e senza sfarfallio restaura subito i condizioni di illuminazione prima di un'interruzione di corrente.

Alte prestazioni e massima efficienza energetica con luce luminosa e splendente.

Finitura d'alluminio ad iniezione. Ha un radiatore che garantisce un'ottima dissipazione del calore.

Ensayo Espectral Lightsource Test Report (1/2)

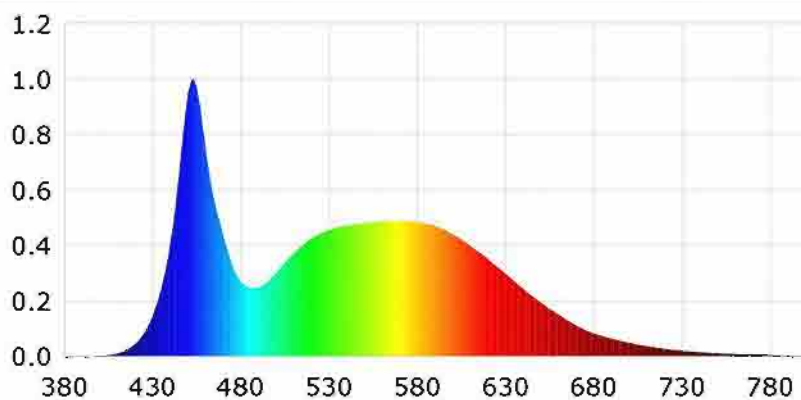
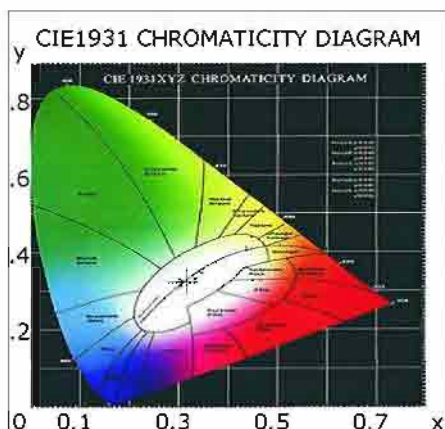
Product Information

Product Category: LED
Product Number: EF0004-15062016

Product Type: PROYECTOR-150W-6000K

CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.3164$ $y=0.3288$ $u(u')=0.2005$ $v=0.3125$ $v'=0.4688$
 CCT: $T_c=6310K$ ($duv=0.00126$) Color Ratio: $R=0.138$ $G=0.806$ $B=0.056$
 Peak Wavelength: 452.8nm Half Bandwidth: 25.2nm
 Dominant Wavelength: 488.3nm Color Purity: 0.061
 Color Render Index: $R_a=84.9$, $avgR(1\sim14)=77.4$, $avgR(1\sim15)=77.8$
 $R1=85$ $R2=87$ $R3=84$ $R4=89$ $R5=84$ $R6=79$ $R7=93$ $R8=79$
 $R9=26$ $R10=64$ $R11=87$ $R12=50$ $R13=85$ $R14=91$ $R15=84$



Photometric Parameters

Luminous Flux: 15898.80 lm Efficiency: 108.42 lm/W Radiant Power: 51.352 W
 Circupic Flux: 67634.70 lm

Electric Parameters

Voltage: 230.40V Current: 0.6620A Power: 146.64W
 Power Factor: 0.9610 Frequency: 49.99Hz

BIN: OUT :

Test Information

Scan Range: 380~800:1nm Photometric Method: Esfera integradora
 Stabilization Time: 30 Min Photometric Condition: Sphere diameter: 2.00m, 4PI
 Max of Signal: 50683 (3641) CCD Integration Time: 40.19 ms

Condition: $T_x:32.4^{\circ}C$, $T_i:25^{\circ}C$, R.H.:60%
 Test Lab:
 Operator: Jacob Vitoria

Test Device: Lisun LMS-9000A(Plus)
 Test Time: 2016-06-15 11:50:03
 Inspector:

Ensayo Espectral Lightsource Test Report (2/2)

WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0027	1.3500	525	0.4407	222.5922	670	0.1109	56.0066
385	0.0012	0.6019	530	0.4550	229.8126	675	0.0942	47.5807
390	0.0006	0.2800	535	0.4639	234.3358	680	0.0814	41.1375
395	0.0008	0.3819	540	0.4698	237.3017	685	0.0719	36.3053
400	0.0021	1.0699	545	0.4742	239.5541	690	0.0630	31.8021
405	0.0045	2.2681	550	0.4799	242.4088	695	0.0558	28.1795
410	0.0103	5.2162	555	0.4825	243.7356	700	0.0483	24.4094
415	0.0220	11.0987	560	0.4850	244.9837	705	0.0418	21.0979
420	0.0435	21.9765	565	0.4875	246.2619	710	0.0369	18.6411
425	0.0821	41.4780	570	0.4876	246.3130	715	0.0316	15.9770
430	0.1455	73.5217	575	0.4862	245.6177	720	0.0265	13.3755
435	0.2501	126.3355	580	0.4824	243.6638	725	0.0229	11.5549
440	0.4118	207.9935	585	0.4760	240.4560	730	0.0196	9.8918
445	0.6648	335.7882	590	0.4671	235.9261	735	0.0172	8.6957
450	0.9474	478.5633	595	0.4563	230.5110	740	0.0143	7.2459
455	0.9640	486.9246	600	0.4392	221.8401	745	0.0127	6.4243
460	0.7458	376.7256	605	0.4203	212.3029	750	0.0109	5.5048
465	0.5559	280.8071	610	0.3970	200.5287	755	0.0088	4.4266
470	0.4339	219.1716	615	0.3734	188.6283	760	0.0083	4.1843
475	0.3292	166.3092	620	0.3489	176.2254	765	0.0069	3.5086
480	0.2667	134.7246	625	0.3235	163.4160	770	0.0054	2.7270
485	0.2487	125.6193	630	0.2964	149.7252	775	0.0050	2.5194
490	0.2494	125.9820	635	0.2695	136.1394	780	0.0038	1.9212
495	0.2689	135.8116	640	0.2422	122.3348	785	0.0025	1.2544
500	0.3018	152.4505	645	0.2161	109.1664	790	0.0036	1.8003
505	0.3376	170.5404	650	0.1923	97.1491	795	0.0024	1.2357
510	0.3721	187.9825	655	0.1693	85.5163	800	0.0011	0.5689
515	0.3998	201.9703	660	0.1482	74.8729			
520	0.4230	213.6624	665	0.1290	65.1837			

Condition: Tx:32.4'C, Ti:25'C, R.H.:60%
Test Lab:
Operator: Jacob Vitoria

Test Device: Lisun LMS-9000A(Plus)
Test Time: 2016-06-15 11:50:03
Inspector:

Report No.: 1

Test Time: 15/06/2016 10:08

Luminaire Property

Luminaire Manufacturer:

Luminaire Category: LED

Luminaire Description: PROYECTOR-150W-6000K

Lamp Description: LED EPISTAR

Luminous Length (mm): 200

Luminous Height (mm): 2

Current: 0.661 A

Power Factor: 0.961

Number of Lamps: 360

Luminous Width (mm): 75

Voltage: 231.7 V

Power: 147.42 W

Photometric Results

CIE Class: Direct

Measurement Flux: 15898.5 lm

Downward Ratio: 100%

Field Angle: H145.2 V133.5

Luminaire Efficacy Rating (LER): 108

Max. Intensity: 6665.11 cd

Total Rated Lamp Lumens: 15898.5 lm

Efficiency: 100%

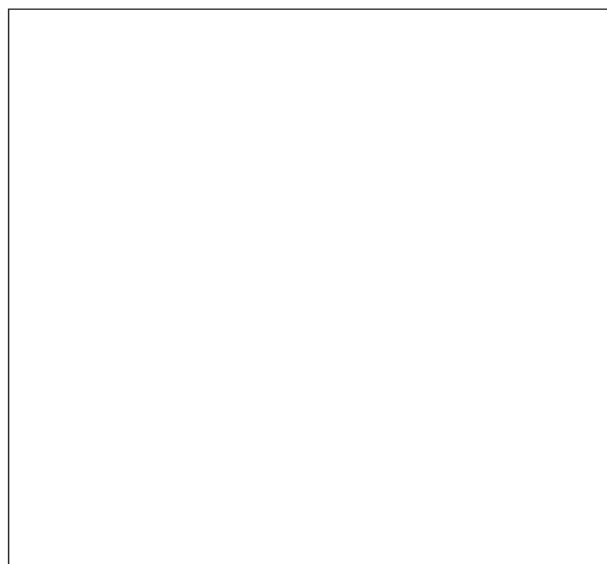
Upward Ratio: 0%

Beam Angle: H103.2 V103.8

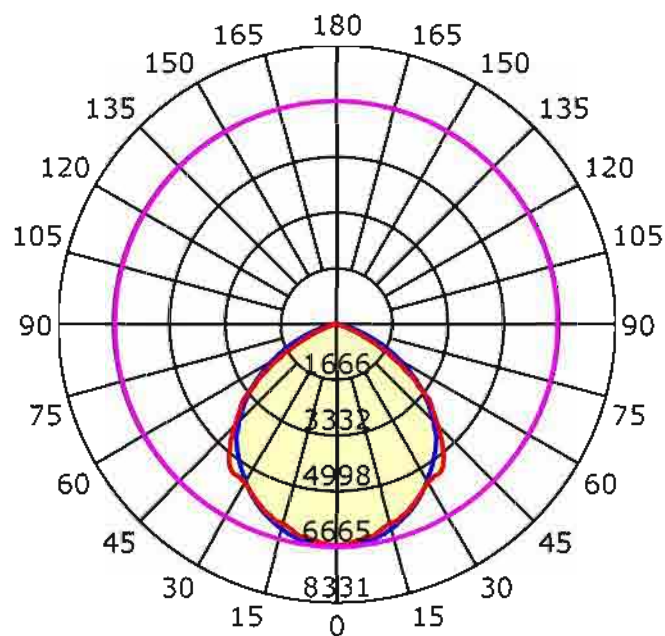
Central Intensity: 6663.61 cd

Pos of Max. Intensity: H0 V1

Picture Of Luminaire



Luminous Intensity Distribution Curve



Unit: cd

— C0-C180 — C90-C270 — G1

C Plane (°):0.0-90.0: 10.0

Test Lab: EF0004-15062016

Test Type: TYPE C

Temperature: 30

Operator: Jacob Vitoria

Gamma Plane (°):0.0-90.0:1.0

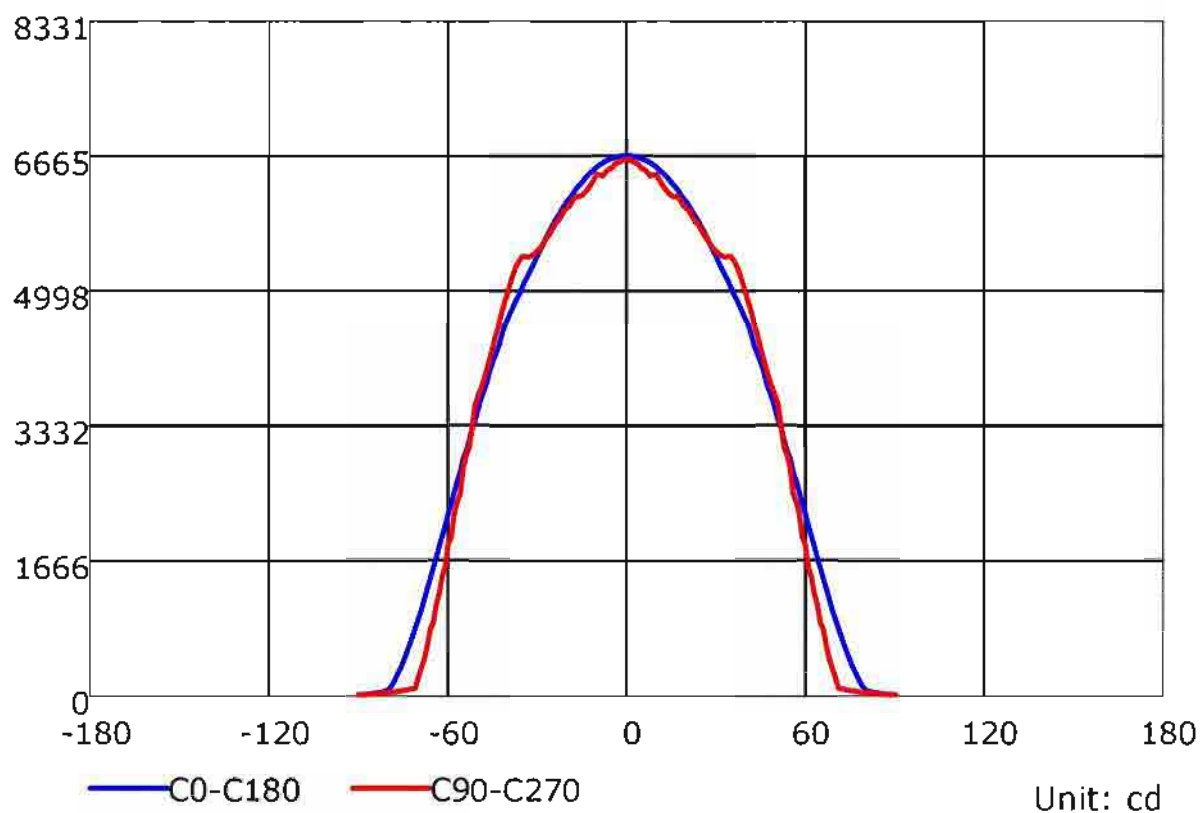
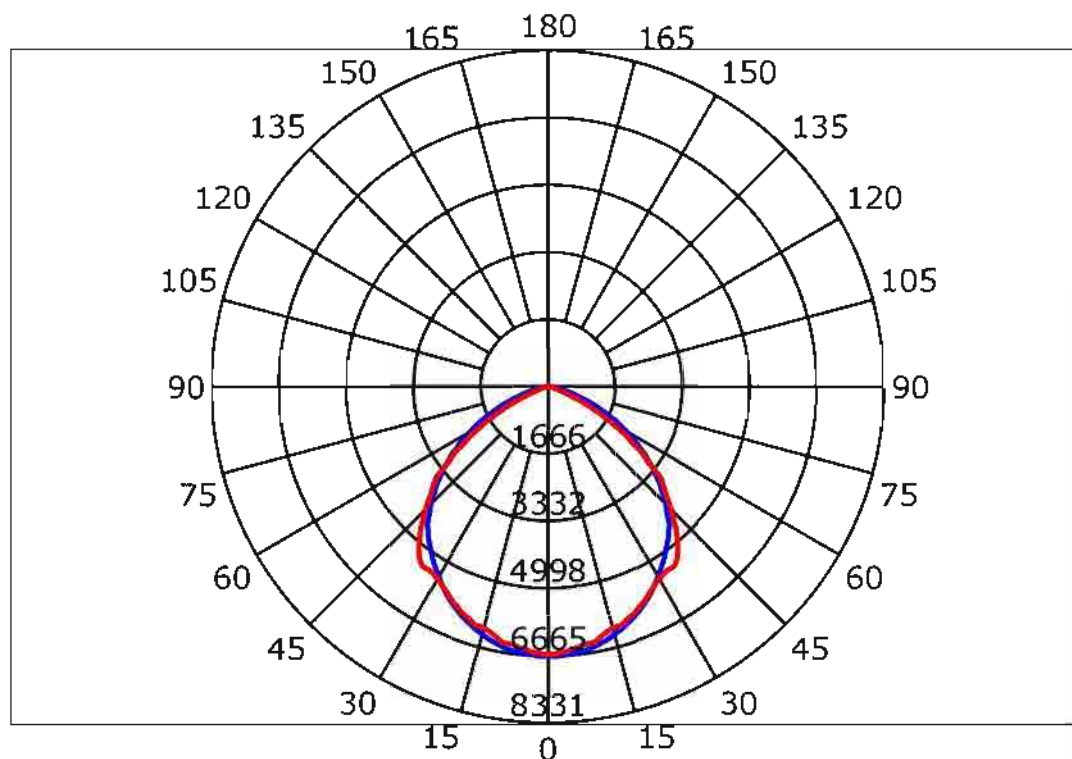
Test Device: LSG-1800B

Distance: 6.933 m

Humidity: 50

Inspector:

Luminous Intensity Distribution Curve

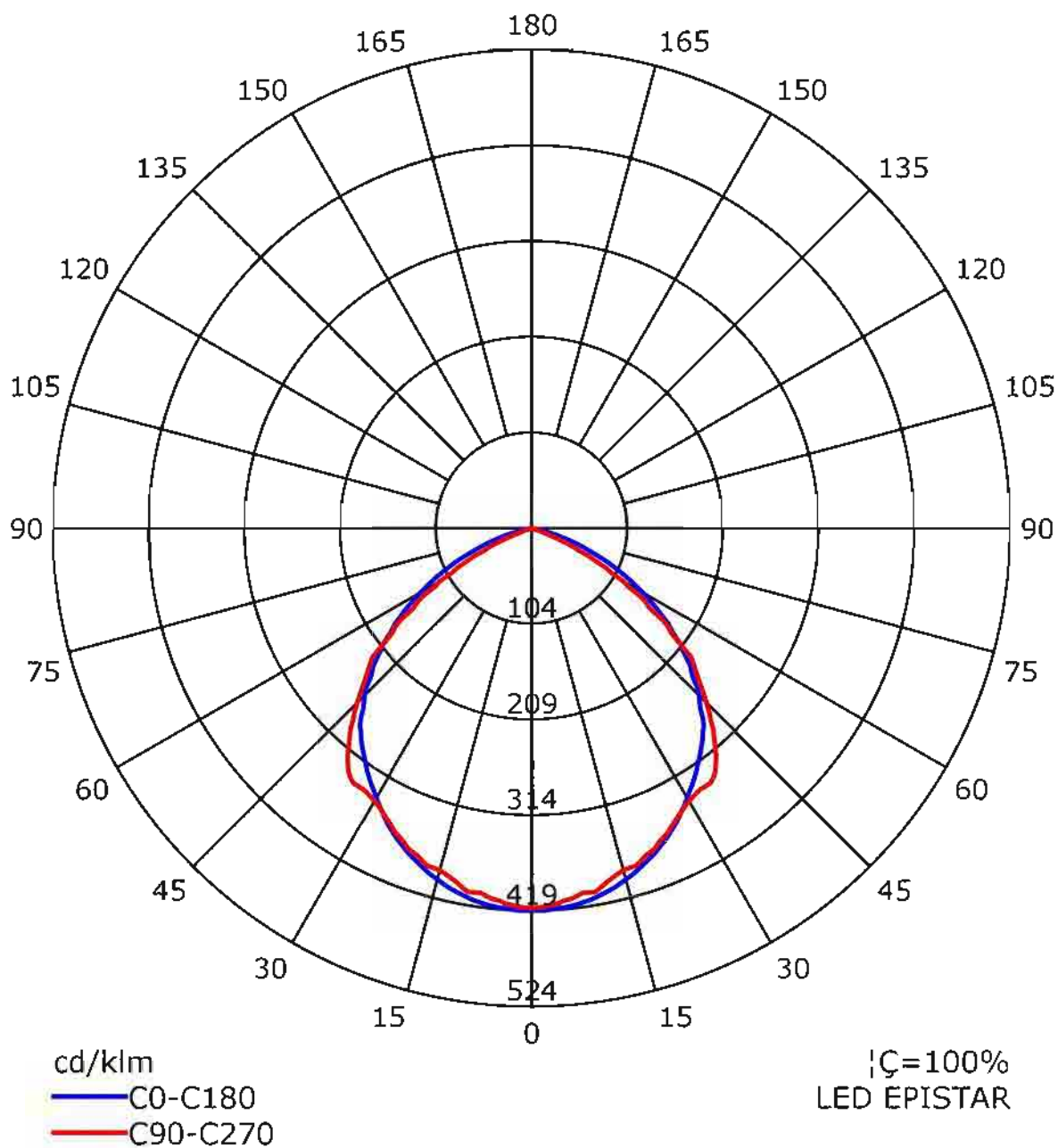


Unit: cd

C Plane (°):0.0-90.0: 10.0
 Test Lab: EF0004-15062016
 Test Type: TYPE C
 Temperature: 30
 Operator: Jacob Vitoria

Gamma Plane (°):0.0-90.0:1.0
 Test Device: LSG-1800B
 Distance: 6.933 m
 Humidity: 50
 Inspector:

Luminous Intensity Distribution Curve(cd/klm)



C Plane (°):0.0-90.0: 10.0
Test Lab: EF0004-15062016
Test Type: TYPE C
Temperature: 30
Operator: Jacob Vitoria

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1800B
Distance: 6.933 m
Humidity: 50
Inspector:

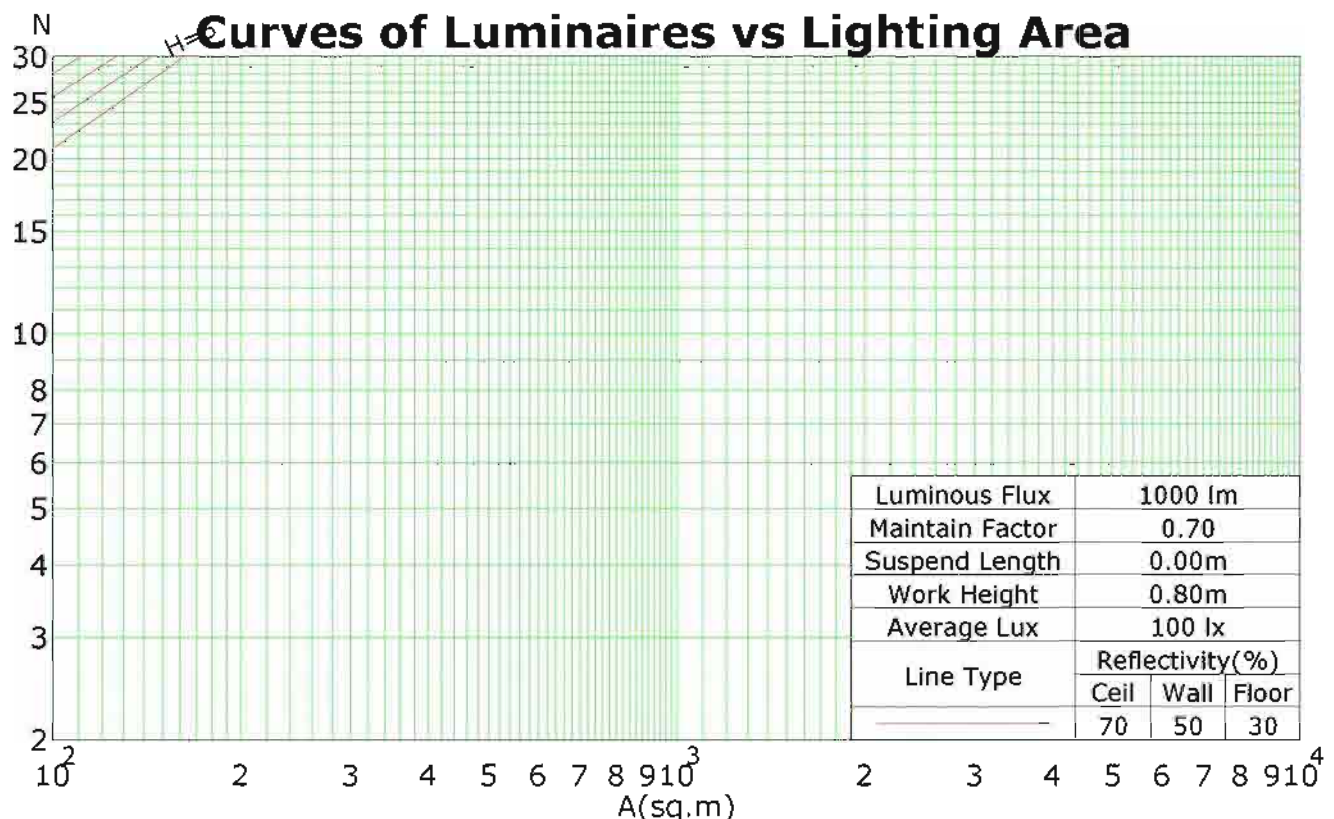
Coefficients Of Utilization - Zonal Cavity Method

RC	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.5	0.5	0.5	0.3	0.3	0.3	0.1	0.1	0.1	0
RW	0.7	0.5	0.3	0.1	0.7	0.5	0.3	0.1	0.5	0.3	0.1	0.5	0.3	0.1	0.5	0.3	0.1	0
RCR	RF = 0.2																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	90	88
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75
3	93	84	77	71	91	83	76	70	80	74	69	77	72	68	74	70	67	65
4	86	75	67	61	84	74	66	60	71	65	60	69	63	59	67	62	58	56
5	79	67	59	53	77	66	58	53	64	57	52	62	56	51	60	55	51	49
6	73	61	52	46	72	60	52	46	58	51	46	57	50	45	55	49	45	43
7	68	55	47	41	66	54	47	41	53	46	41	52	45	40	50	45	40	38
8	63	50	42	37	62	50	42	37	49	41	36	47	41	36	46	40	36	34
9	59	46	38	33	58	46	38	33	45	38	33	44	37	33	43	37	33	31
10	56	43	35	30	54	42	35	30	41	35	30	40	34	30	40	34	30	28

Spacing Criteria (0-180): 1.21

Spacing Criteria (90-270): 1.25

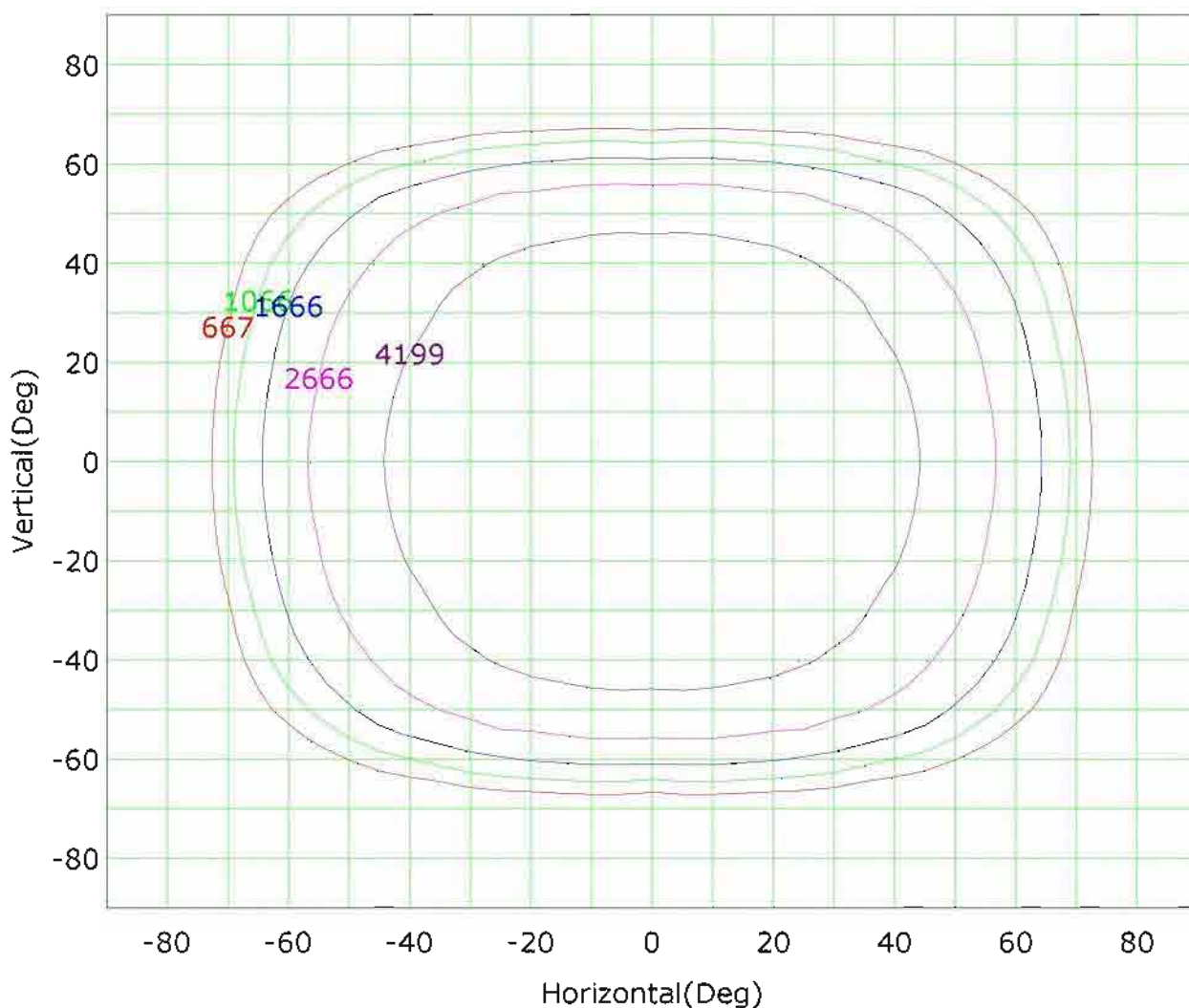
Spacing Criteria (Diagonal): 1.36



C Plane (°):0.0-90.0: 10.0
Test Lab: EF0004-15062016
Test Type: TYPE C
Temperature: 30
Operator: Jacob Vitoria

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1800B
Distance: 6.933 m
Humidity: 50
Inspector:

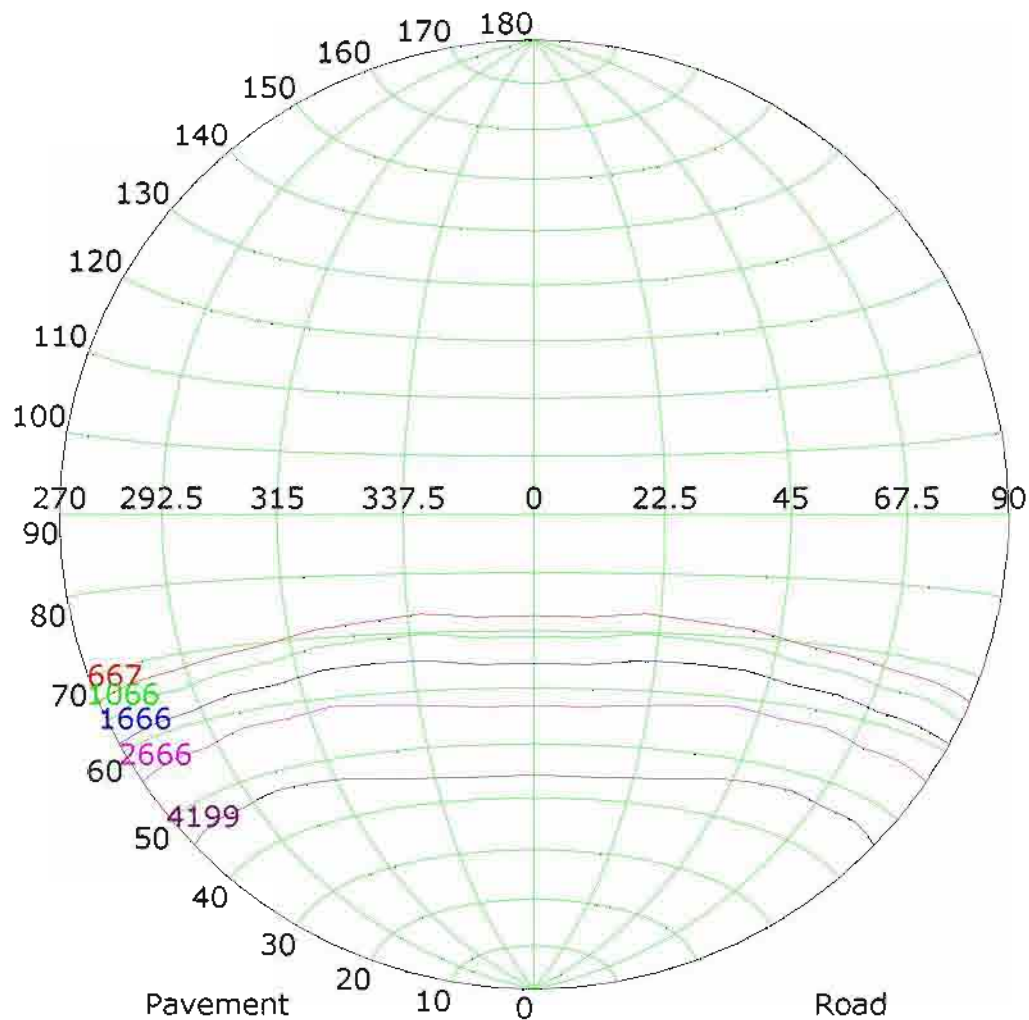
Isocandela (rectangle)



Imax (100%): 6665 cd

(10%): 667 cd	(16%): 1066 cd
(25%): 1666 cd	(40%): 2666 cd
(63%): 4199 cd	(100%): 6665 cd

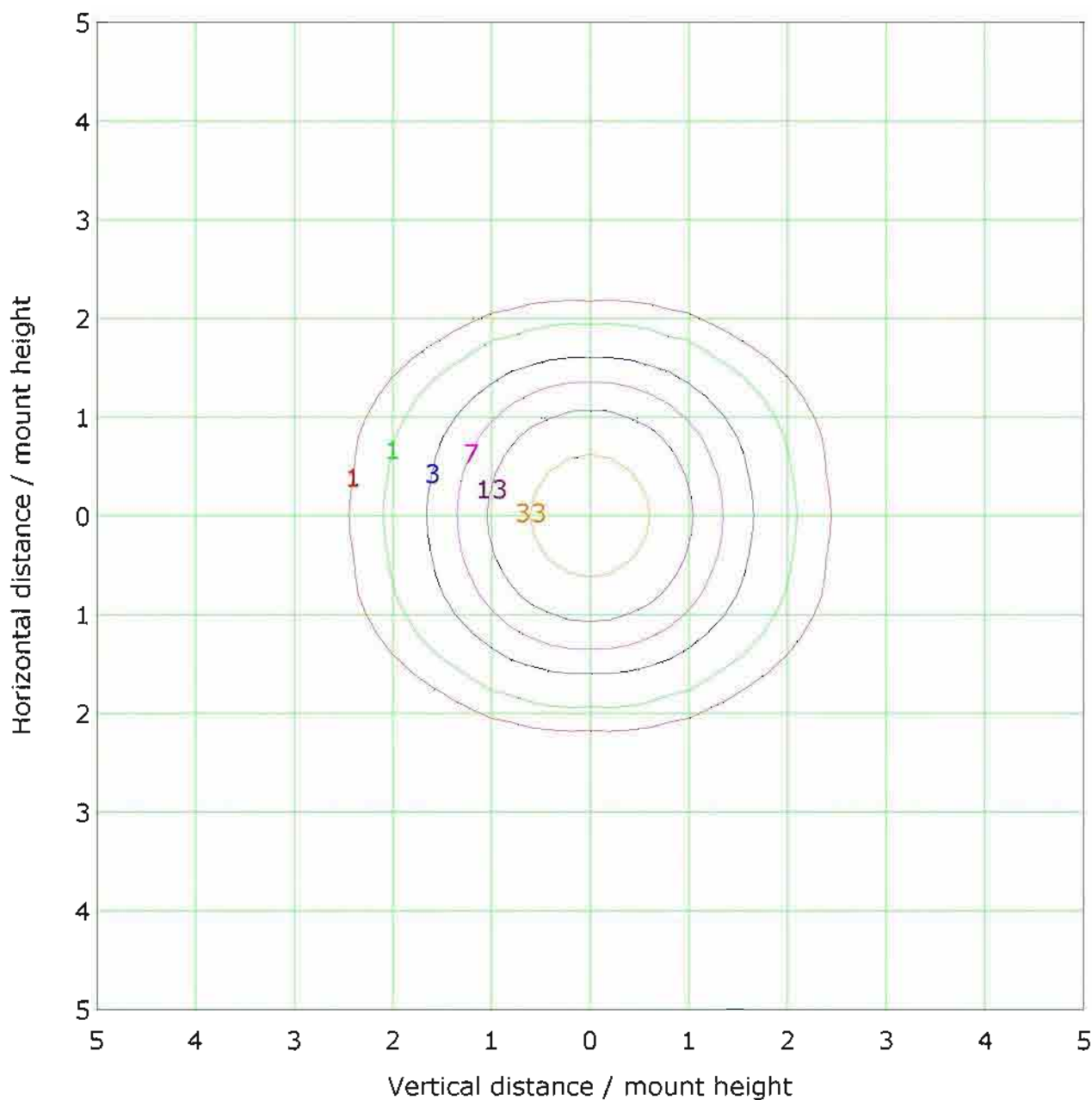
Isocandela (sphere)



Imax (100%): 6665 cd

(10%): 667 cd	(16%): 1066 cd
(25%): 1666 cd	(40%): 2666 cd
(63%): 4199 cd	(100%): 6665 cd

IsoLux Plot



Mounting Height: 10.0m Max Lux(100%): 66.6 lx

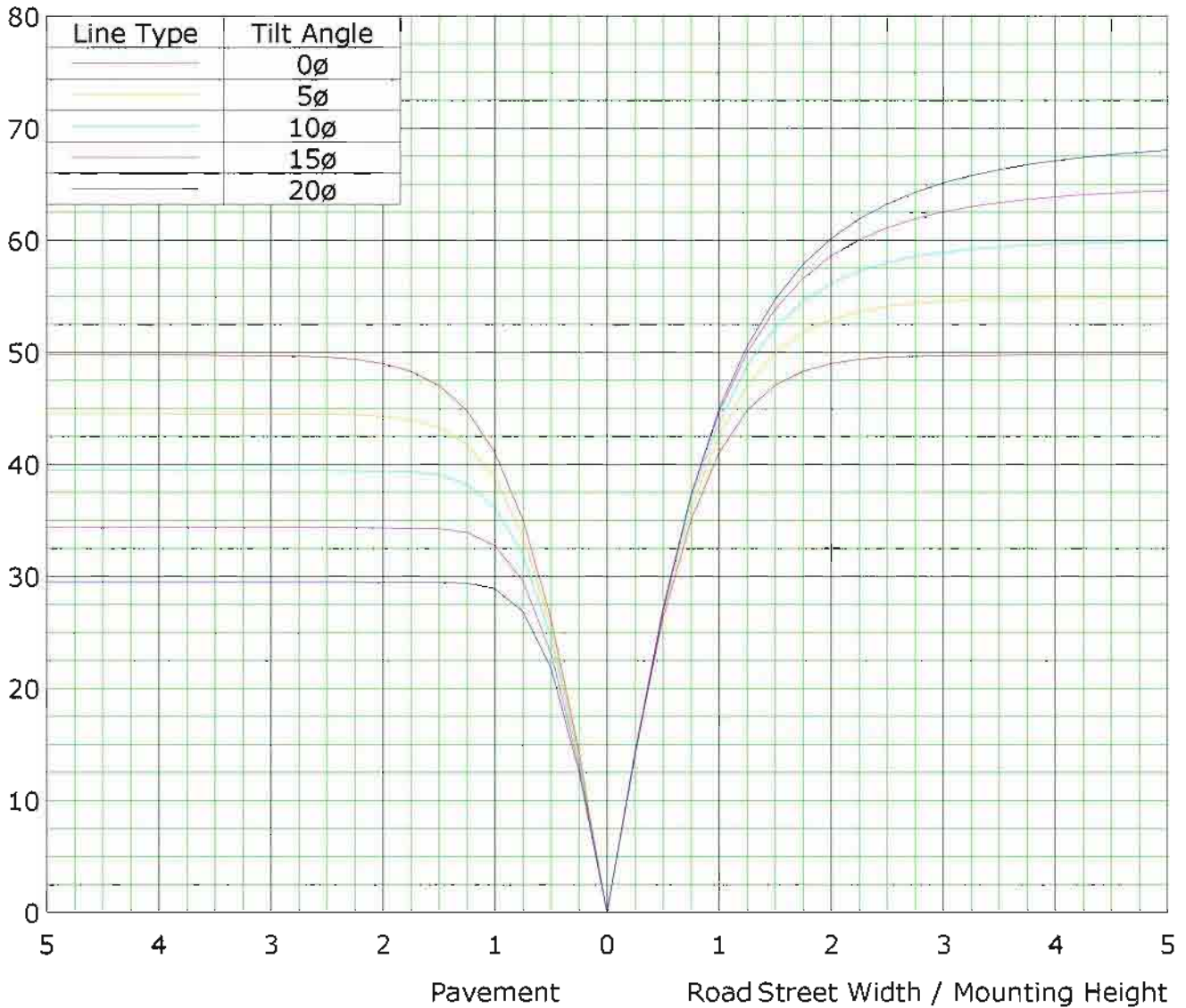
(1%): 0.7 lx	(2%): 1.3 lx
(5%): 3.3 lx	(10%): 6.7 lx
(20%): 13.3 lx	(50%): 33.3 lx
(100%): 66.6 lx	

C Plane (°):0.0-90.0: 10.0
 Test Lab: EF0004-15062016
 Test Type: TYPE C
 Temperature: 30
 Operator: Jacob Vitoria

Gamma Plane (°):0.0-90.0:1.0
 Test Device: LSG-1800B
 Distance: 6.933 m
 Humidity: 50
 Inspector:

Roadway CU Curve

Efficiency(%)



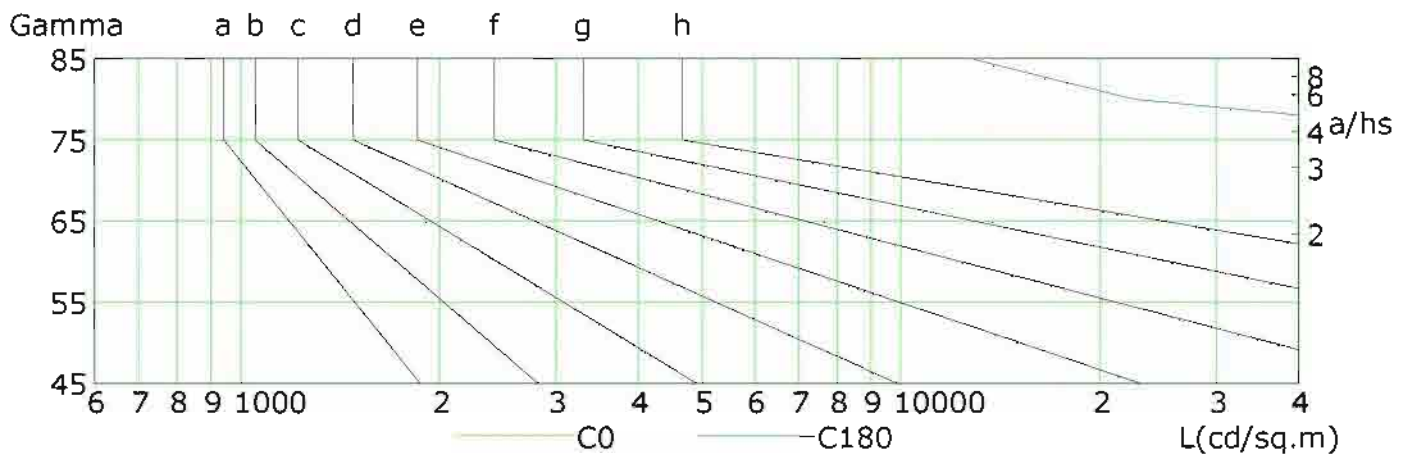
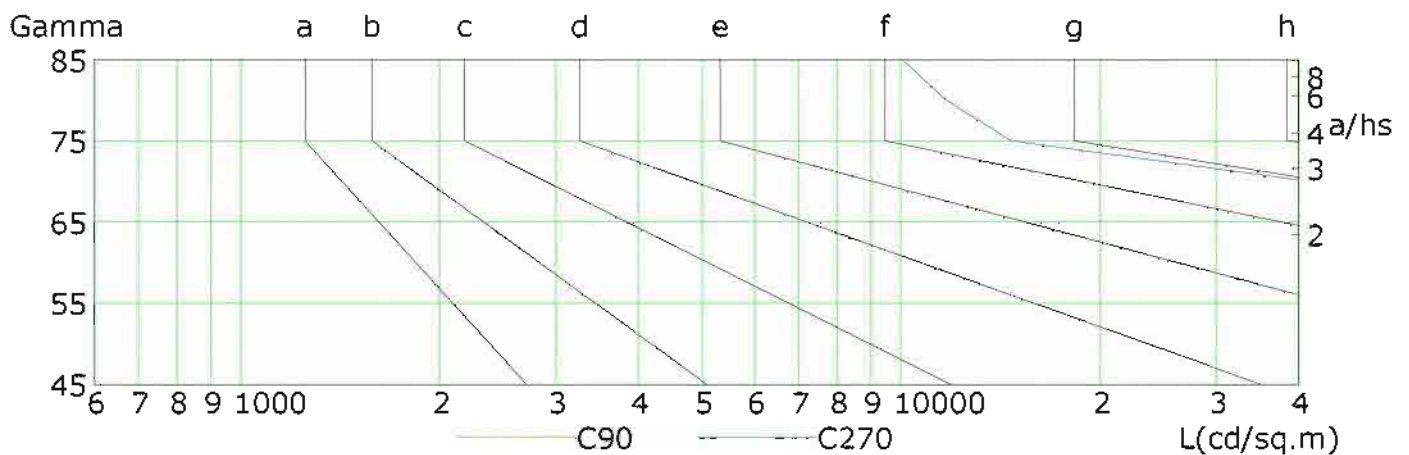
C Plane (°):0.0-90.0: 10.0
 Test Lab: EF0004-15062016
 Test Type: TYPE C
 Temperature: 30
 Operator: Jacob Vitoria

Gamma Plane (°):0.0-90.0:1.0
 Test Device: LSG-1800B
 Distance: 6.933 m
 Humidity: 50
 Inspector:

Lum Limit Curve

Dazzle	Quality	Illuminance (lx)							
1.15	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

a b c d e f g h

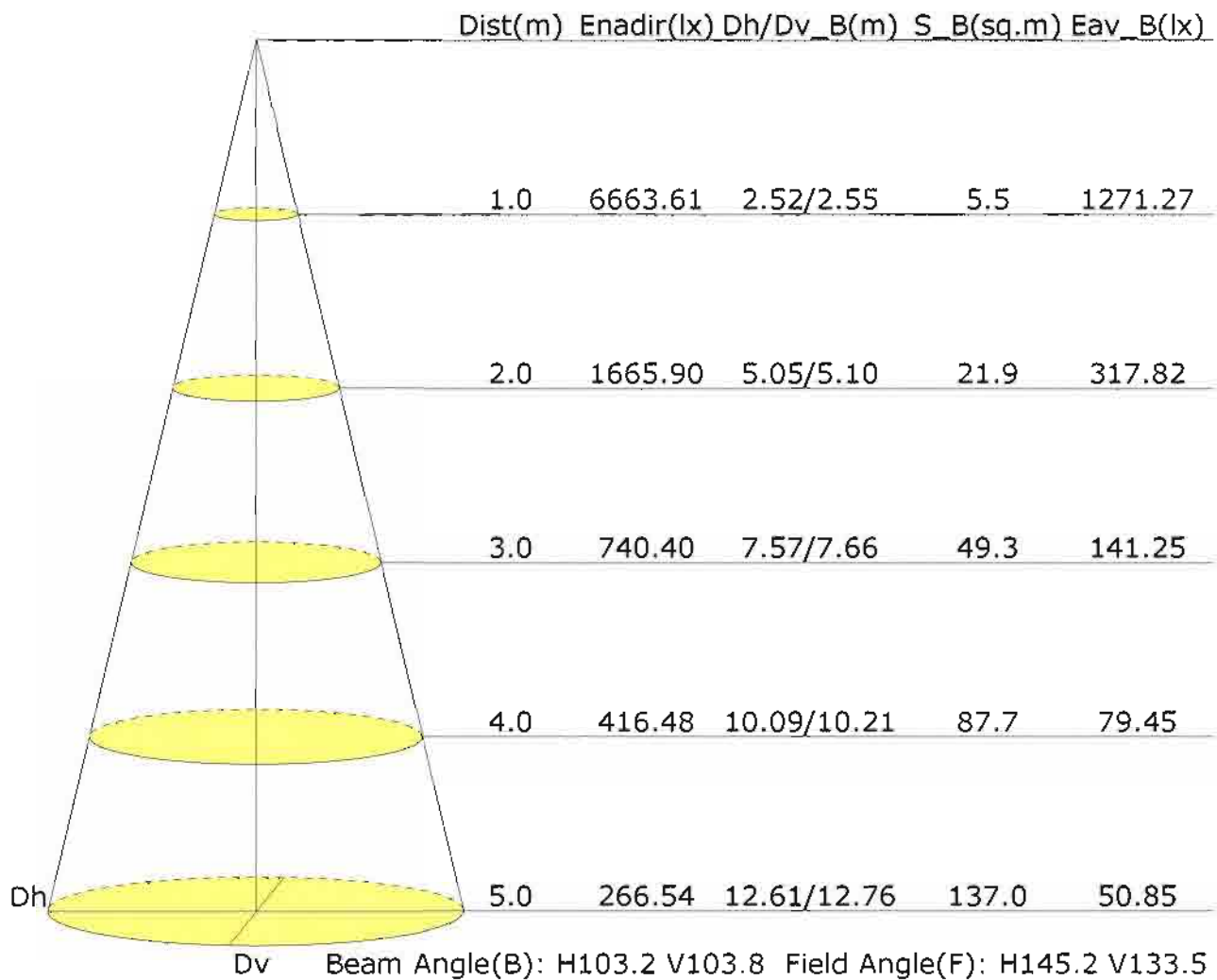


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	378719	353839	326633	284707	235607	170988	98865	22477	12751
C90	401504	377680	320562	243394	138142	41447	14675	11702	10029
C180	378719	353839	326633	284707	235607	170988	98865	22477	12751
C270	401504	377680	320562	243394	138142	41447	14675	11702	10029

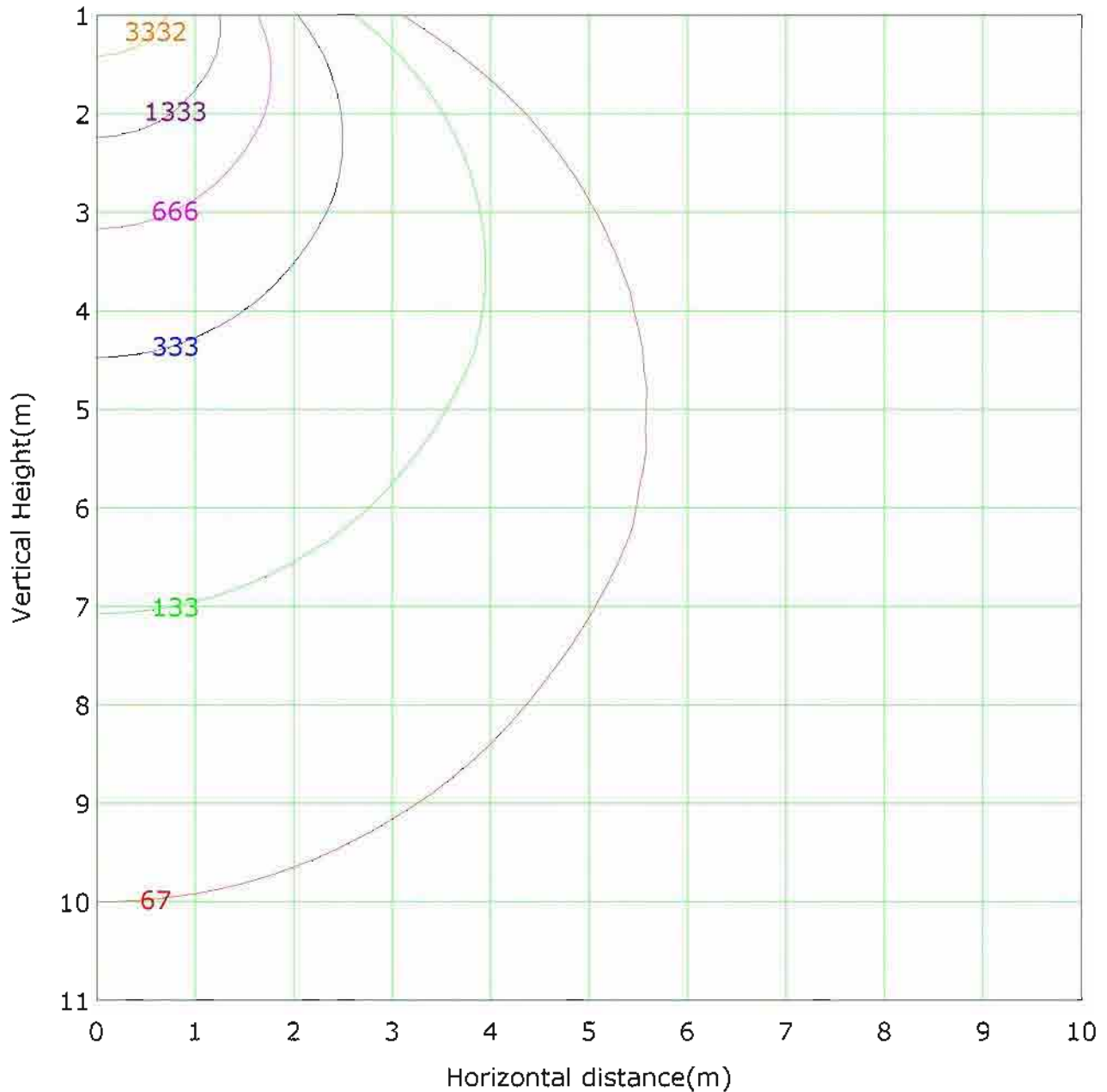
C Plane (°):0.0-90.0: 10.0
 Test Lab: EF0004-15062016
 Test Type: TYPE C
 Temperature: 30
 Operator: Jacob Vitoria

Gamma Plane (°):0.0-90.0:1.0
 Test Device: LSG-1800B
 Distance: 6.933 m
 Humidity: 50
 Inspector:

Illuminance at a Distance



Vertical IsoLux Plot



Lowest(m): 1.0m Highest(m): 11.0m Max Lux: 6663.6 lx

(1%): 66.6 lx	(2%): 133.3 lx
(5%): 333.2 lx	(10%): 666.4 lx
(20%): 1332.7 lx	(50%): 3331.8 lx
(100%): 6663.6 lx	

Area Flux Table

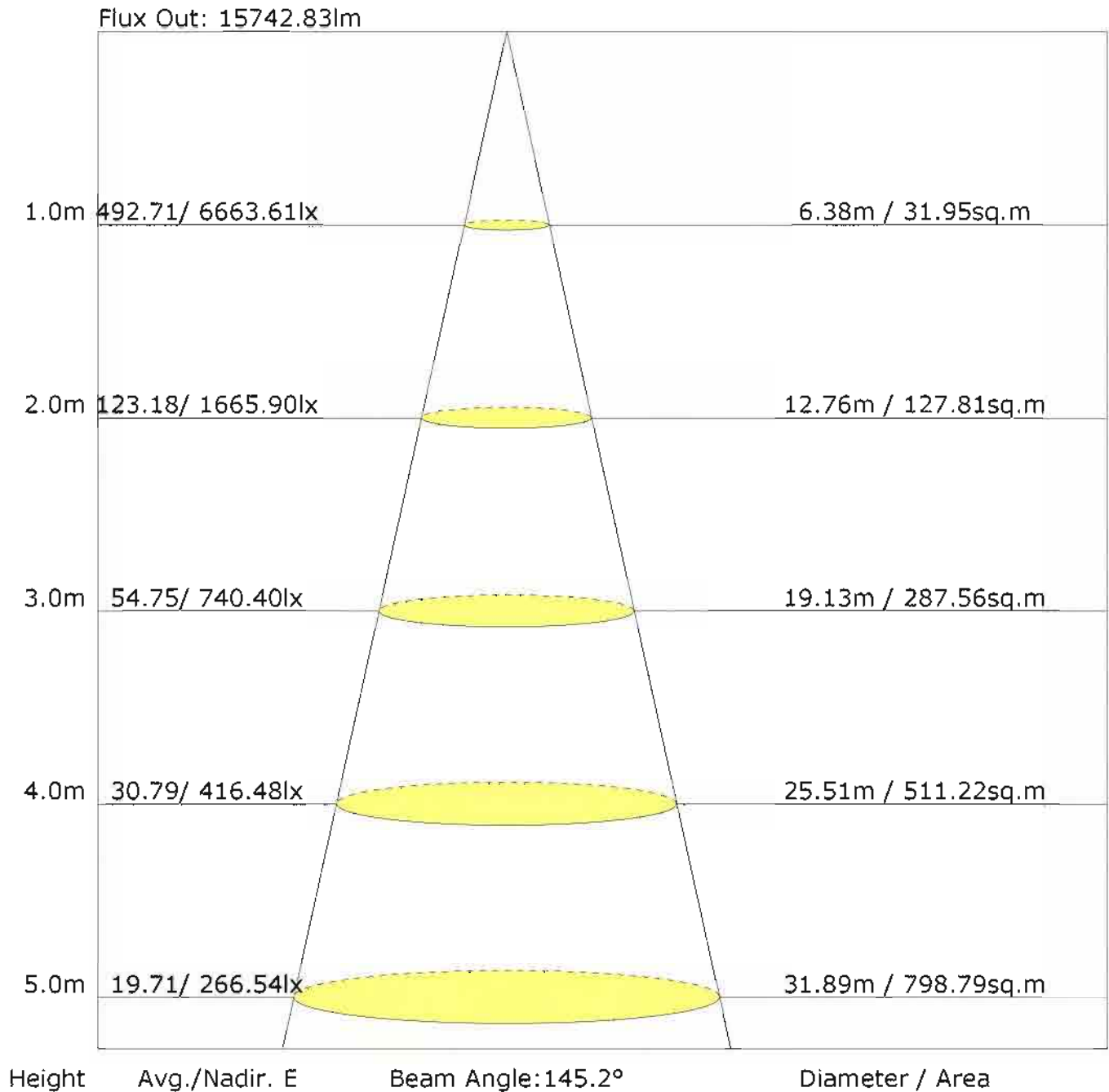
Unit: lm

		Vertical plane																				
		-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90	Flux(T)	Flux(E)
Horizontal plane	-90	0.0	0.1	0.1	0.2	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.2	0.1	0.1	0.0	0.0	5.0	0.0
	-80	0.0	0.1	0.3	0.6	1.1	1.4	1.9	2.0	2.1	2.1	2.0	1.9	1.4	1.1	0.6	0.3	0.1	0.0	19.4	0.0	
	-70	0.0	0.2	1.2	4.2	9.7	16.0	23.4	28.0	30.3	30.3	28.0	23.4	16.0	9.7	4.2	1.2	0.2	0.0	226.3	166.2	
	-60	0.0	0.5	4.6	14.7	31.1	48.9	67.3	78.5	84.7	84.7	78.5	67.3	48.9	31.1	14.7	4.6	0.5	0.0	660.4	645.1	
	-50	0.1	1.1	9.3	26.9	52.3	80.0	104.3	121.8	131.1	131.1	121.8	104.3	80.0	52.3	26.9	9.3	1.1	0.1	1053.9	904.6	
	-40	0.1	1.9	13.4	36.7	67.0	100.0	127.5	149.3	161.1	161.1	149.3	127.5	100.0	67.0	36.7	13.4	1.9	0.1	1314.2	308.1	
	-30	0.1	2.8	16.6	43.4	77.1	110.6	139.1	161.4	173.9	173.9	161.4	139.1	110.6	77.1	43.4	16.6	2.8	0.1	1450.0	445.0	
	-20	0.1	3.5	19.1	47.7	84.1	119.5	149.8	174.0	187.5	187.5	174.0	149.8	119.5	84.1	47.7	19.1	3.5	0.1	1570.5	566.1	
	-10	0.1	3.9	20.5	50.3	87.8	124.4	157.1	183.1	197.2	197.2	183.1	157.1	124.4	87.8	50.3	20.5	3.9	0.1	1648.8	644.7	
	0	0.1	3.9	20.5	50.3	87.8	124.4	157.1	183.1	197.2	197.2	183.1	157.1	124.4	87.8	50.3	20.5	3.9	0.1	1648.8	644.7	
	10	0.1	3.5	19.1	47.7	84.1	119.5	149.8	174.0	187.5	187.5	174.0	149.8	119.5	84.1	47.7	19.1	3.5	0.1	1570.5	566.1	
	20	0.1	2.8	16.6	43.4	77.1	110.6	139.1	161.4	173.9	173.9	161.4	139.1	110.6	77.1	43.4	16.6	2.8	0.1	1450.0	445.0	
	30	0.1	1.9	13.4	36.7	67.0	100.0	127.5	149.3	161.1	161.1	149.3	127.5	100.0	67.0	36.7	13.4	1.9	0.1	1314.2	308.1	
	40	0.1	1.1	9.3	26.9	52.3	80.0	104.3	121.8	131.1	131.1	121.8	104.3	80.0	52.3	26.9	9.3	1.1	0.1	1053.9	904.6	
	50	0.0	0.5	4.6	14.7	31.1	48.9	67.3	78.5	84.7	84.7	78.5	67.3	48.9	31.1	14.7	4.6	0.5	0.0	660.4	645.1	
	60	0.0	0.2	1.2	4.2	9.7	16.0	23.4	28.0	30.3	30.3	28.0	23.4	16.0	9.7	4.2	1.2	0.2	0.0	226.3	166.2	
	70	0.0	0.1	0.3	0.6	1.1	1.4	1.9	2.0	2.1	2.1	2.0	1.9	1.4	1.1	0.6	0.3	0.1	0.0	19.4	0.0	
	80	0.0	0.1	0.1	0.2	0.3	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.3	0.2	0.1	0.1	0.0	0.0	5.0	0.0	
	90	1.0	28.1	170.4	449.4	820.8	1202.3	1541.8	1797.4	1937.1	1937.1	1797.4	1541.8	1202.3	820.8	449.4	170.4	28.1	1.0	15897		
	Flux(T)	1.0	28.1	170.4	449.4	820.8	1202.3	1541.8	1797.4	1937.1	1937.1	1797.4	1541.8	1202.3	820.8	449.4	170.4	28.1	1.0	15897		
Flux(E)	0.0	7.2	151.2	433.5	805.8	1188.2	1527.7	1784.0	1923.9	1923.9	1784.0	1527.7	1188.2	805.8	433.5	151.2	7.2	0.0		15643		

C Plane (°):0.0-90.0: 10.0
 Test Lab: EF0004-15062016
 Test Type: TYPE C
 Temperature: 30
 Operator: Jacob Vitoria

Gamma Plane (°):0.0-90.0:1.0
 Test Device: LSG-1800B
 Distance: 6.933 m
 Humidity: 50
 Inspector:

The Average Illuminance Effective Figure



UGR Table

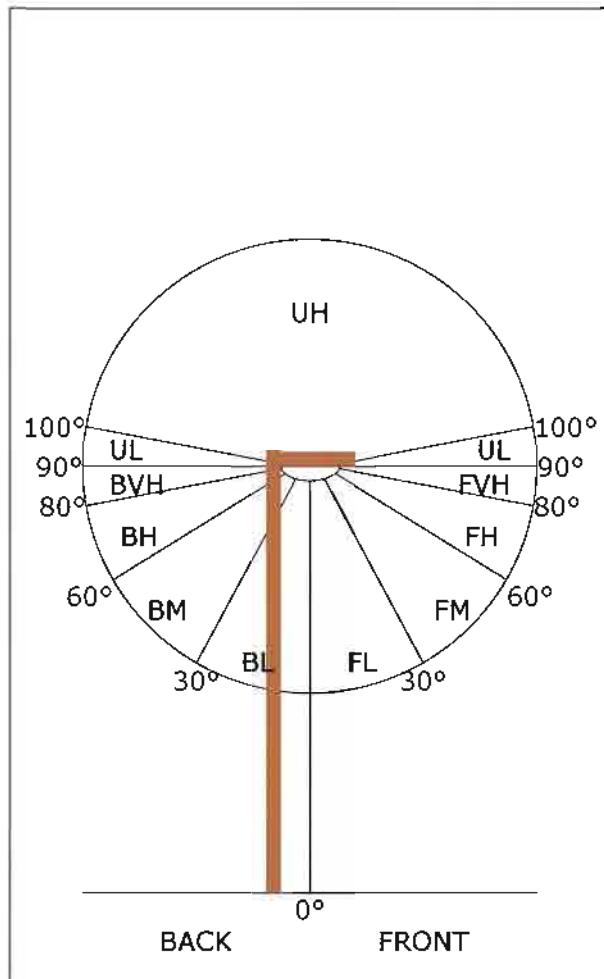
Reflectance:										
Ceiling (cavity)	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
X=2H Y=2H	22.7	24.2	23.1	24.6	24.9	22.1	23.6	22.4	23.9	24.2
3H	23.6	25.0	24.0	25.3	25.7	22.2	23.5	22.6	23.9	24.2
4H	23.7	25.0	24.1	25.4	25.7	22.1	23.4	22.5	23.8	24.1
6H	23.7	24.9	24.1	25.3	25.6	22.1	23.2	22.5	23.6	24.0
8H	23.7	24.8	24.1	25.2	25.6	22.0	23.1	22.5	23.5	23.9
12H	23.7	24.7	24.1	25.1	25.5	22.0	23.1	22.4	23.4	23.9
X=4H Y=2H	23.0	24.3	23.4	24.7	25.0	22.5	23.7	22.9	24.1	24.5
3H	24.1	25.1	24.5	25.5	25.9	22.7	23.7	23.1	24.1	24.5
4H	24.2	25.1	24.6	25.6	26.0	22.6	23.5	23.0	23.9	24.4
6H	24.2	25.0	24.7	25.4	25.9	22.5	23.3	23.0	23.8	24.2
8H	24.2	24.9	24.6	25.3	25.8	22.5	23.2	23.0	23.7	24.2
12H	24.1	24.8	24.6	25.3	25.7	22.5	23.1	22.9	23.6	24.1
X=8H Y=4H	24.1	24.9	24.6	25.3	25.8	22.6	23.3	23.0	23.8	24.2
6H	24.1	24.7	24.6	25.2	25.7	22.5	23.1	23.0	23.6	24.1
8H	24.0	24.6	24.6	25.1	25.6	22.4	23.0	23.0	23.5	24.0
12H	24.0	24.5	24.5	25.0	25.6	22.4	22.9	22.9	23.4	24.0
X=12H Y=4H	24.1	24.8	24.6	25.2	25.7	22.5	23.2	23.0	23.7	24.1
6H	24.1	24.6	24.6	25.1	25.6	22.5	23.0	23.0	23.5	24.0
8H	24.0	24.5	24.5	25.0	25.6	22.4	22.9	22.9	23.4	24.0

Calculate in accordance with CIE 190:2010

C Plane (°):0.0-90.0: 10.0
 Test Lab: EF0004-15062016
 Test Type: TYPE C
 Temperature: 30
 Operator: Jacob Vitoria

Gamma Plane (°):0.0-90.0:1.0
 Test Device: LSG-1800B
 Distance: 6.933 m
 Humidity: 50
 Inspector:

FLUX DISTRIBUTION TABLE BASED ON THE IESNA LUMINAIRE CLASSIFICATION SYSTEM



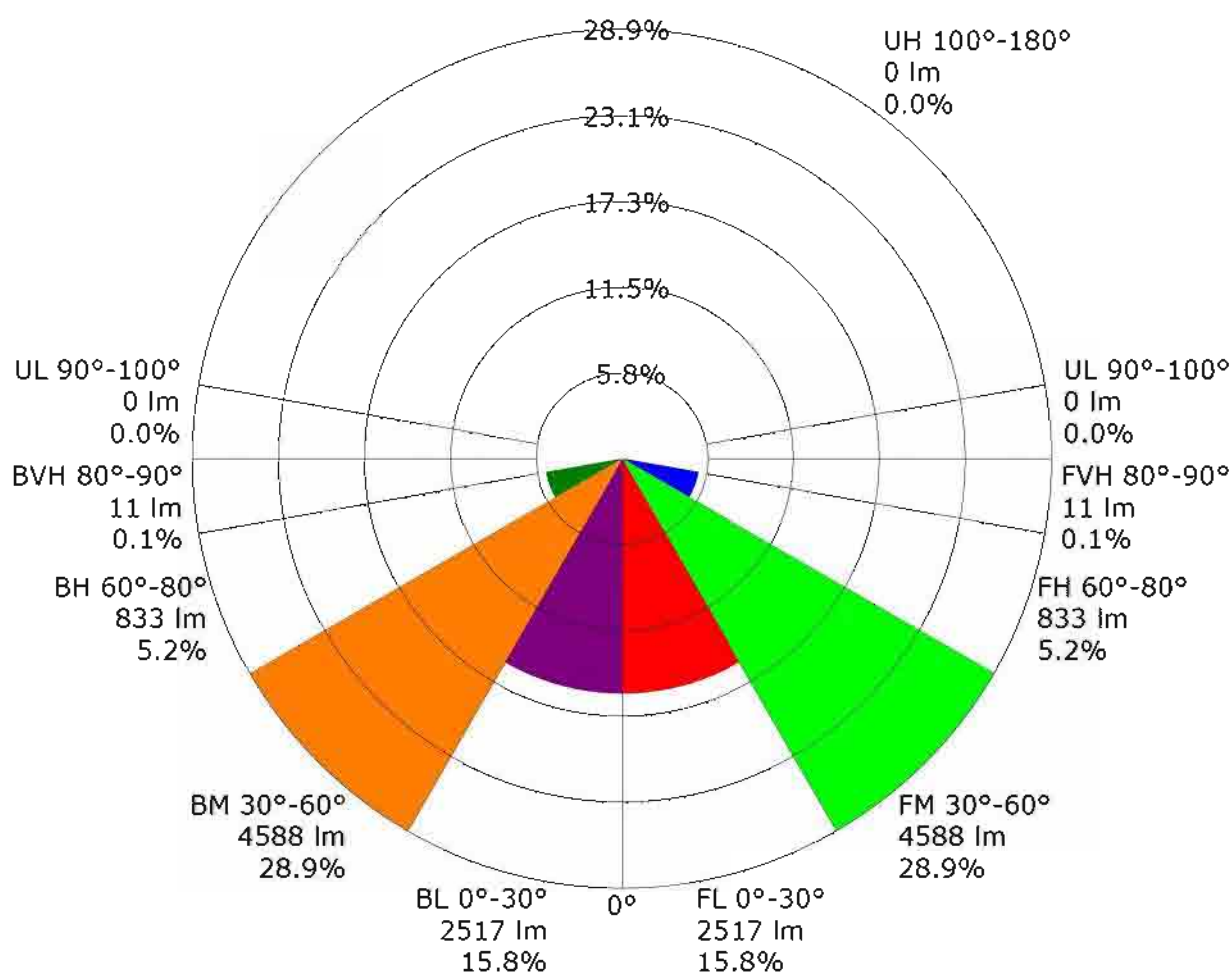
ZONE	LUMENS	% LAMP LUMENS
FORWARD LIGHT	7949	50.0
FL (0°-30°)	2517	15.8
FM (30°-60°)	4588	28.9
FH (60°-80°)	833	5.2
FVH (80°-90°)	11	0.1
BACK LIGHT	7949	50.0
BL (0°-30°)	2517	15.8
BM (30°-60°)	4588	28.9
BH (60°-80°)	833	5.2
BVH (80°-90°)	11	0.1
UP LIGHT	0	0.0
UL (90°-100°)	0	0.0
UH (100°-180°)	0	0.0
TRAPPED LIGHT	NA	NA

BUG(Backlight,Uplight,Glare) Rating Base On TM-15-07	
Asymmetrical Luminaire Types (Type I,II,III,IV)	B4 U1 G2
Quadrilateral Symmetrical Luminaire Types (Type V,Area Light)	B4 U1 G1

C Plane (°):0.0-90.0: 10.0
 Test Lab: EF0004-15062016
 Test Type: TYPE C
 Temperature: 30
 Operator: Jacob Vitoria

Gamma Plane (°):0.0-90.0:1.0
 Test Device: LSG-1800B
 Distance: 6.933 m
 Humidity: 50
 Inspector:

LCS Graph



Forward Light

Back Light

Scale= MAX LCS%

Trapped Light:NA,NA

Utilisation Factor Table(Floor cavity)

Utilisation Factors UF(F)			SHR NOM = 1.25								
Room Reflectance			Room Index(RI)								
Ceiling	Wall	Floor	0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00
0.70	0.50	0.20	0.62	0.73	0.80	0.85	0.92	0.97	1.00	1.04	1.06
	0.30		0.54	0.66	0.74	0.79	0.87	0.92	0.95	1.00	1.03
	0.20		0.49	0.61	0.69	0.74	0.83	0.88	0.92	0.97	1.01
0.50	0.50	0.20	0.60	0.71	0.78	0.83	0.89	0.93	0.96	1.00	1.02
	0.30		0.54	0.65	0.72	0.77	0.85	0.89	0.93	0.97	1.00
	0.20		0.49	0.60	0.68	0.73	0.81	0.86	0.90	0.94	0.97
0.30	0.50	0.20	0.59	0.69	0.76	0.80	0.86	0.90	0.93	0.96	0.98
	0.30		0.53	0.64	0.71	0.76	0.83	0.87	0.90	0.94	0.96
	0.20		0.48	0.59	0.67	0.72	0.79	0.84	0.87	0.92	0.94
0.00	0.00	0.00	0.46	0.57	0.64	0.69	0.76	0.81	0.84	0.87	0.90
Rating:147W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980											

Utilisation Factor Table(Wall)

Utilisation Factors UF(W)			SHR NOM = 1.25								
Room Reflectance			Room Index(RI)								
Ceiling	Wall	Floor	0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00
0.70	0.50	0.20	0.92	0.74	0.61	0.53	0.41	0.34	0.28	0.22	0.18
	0.30		0.77	0.63	0.53	0.47	0.37	0.31	0.26	0.20	0.17
	0.20		0.66	0.55	0.47	0.42	0.34	0.28	0.25	0.19	0.16
0.50	0.50	0.20	0.89	0.71	0.59	0.50	0.39	0.35	0.27	0.20	0.17
	0.30		0.75	0.61	0.52	0.45	0.36	0.29	0.25	0.19	0.16
	0.20		0.65	0.54	0.46	0.41	0.33	0.27	0.24	0.18	0.15
0.30	0.50	0.20	0.86	0.68	0.56	0.48	0.37	0.30	0.25	0.19	0.16
	0.30		0.73	0.60	0.50	0.43	0.34	0.28	0.24	0.18	0.15
	0.20		0.64	0.53	0.45	0.40	0.32	0.26	0.23	0.18	0.14
0.00	0.00	0.00	0.54	0.43	0.36	0.31	0.24	0.19	0.16	0.13	0.10
<p>Rating:147W Photometrically tested without ceiling board.</p> <p>Multiply UF values by service correction factors</p> <p>Calculate in accordance with CIBSE Technical Memorandum NO.5 1980</p>											

Utilisation Factor Table(Ceiling cavity)

Utilisation Factors UF(C)			SHR NOM = 1.25								
Room Reflectance			Room Index(RI)								
Ceiling	Wall	Floor	0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00
0.70	0.50	0.20	0.16	0.17	0.18	0.18	0.19	0.20	0.20	0.21	0.21
	0.30		0.09	0.11	0.12	0.13	0.15	0.16	0.17	0.18	0.19
	0.20		0.05	0.07	0.08	0.10	0.12	0.13	0.14	0.16	0.17
0.50	0.50	0.20	0.15	0.16	0.17	0.18	0.18	0.19	0.19	0.20	0.20
	0.30		0.09	0.11	0.12	0.13	0.15	0.16	0.17	0.18	0.19
	0.20		0.05	0.07	0.08	0.09	0.11	0.13	0.14	0.16	0.17
0.30	0.50	0.20	0.15	0.16	0.16	0.17	0.18	0.18	0.19	0.19	0.20
	0.30		0.09	0.10	0.12	0.13	0.14	0.15	0.16	0.17	0.18
	0.20		0.05	0.06	0.08	0.09	0.11	0.13	0.14	0.15	0.16
0.00	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
<p>Rating:147W Photometrically tested without ceiling board.</p> <p>Multiply UF values by service correction factors</p> <p>Calculate in accordance with CIBSE Technical Memorandum NO.5 1980</p>											

Zonal Lumen

Gamma [°]	I _{mean} [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
0.0-1.0	6646.0	6.4	6.4	0.04	0.04
1.0-2.0	6639.9	19.1	25.4	0.12	0.16
2.0-3.0	6631.2	31.7	57.1	0.20	0.36
3.0-4.0	6615.2	44.3	101.4	0.28	0.64
4.0-5.0	6594.4	56.7	158.2	0.36	0.99
5.0-6.0	6570.1	69.1	227.2	0.43	1.43
6.0-7.0	6547.3	81.3	308.5	0.51	1.94
7.0-8.0	6519.0	93.3	401.8	0.59	2.53
8.0-9.0	6489.0	105.2	507.0	0.66	3.19
9.0-10.0	6466.2	117.0	624.0	0.74	3.93
10.0-11.0	6442.0	128.7	752.8	0.81	4.73
11.0-12.0	6407.4	140.1	892.8	0.88	5.62
12.0-13.0	6366.7	151.1	1044.0	0.95	6.57
13.0-14.0	6321.9	161.8	1205.8	1.02	7.58
14.0-15.0	6273.4	172.2	1378.0	1.08	8.67
15.0-16.0	6227.5	182.5	1560.5	1.15	9.82
16.0-17.0	6186.4	192.7	1753.2	1.21	11.03
17.0-18.0	6145.4	202.6	1955.9	1.27	12.30
18.0-19.0	6098.4	212.2	2168.1	1.33	13.64
19.0-20.0	6048.2	221.4	2389.5	1.39	15.03
20.0-21.0	5999.1	230.4	2619.9	1.45	16.48
21.0-22.0	5946.1	239.0	2858.8	1.50	17.98
22.0-23.0	5888.0	247.1	3105.9	1.55	19.54
23.0-24.0	5830.3	254.9	3360.9	1.60	21.14
24.0-25.0	5771.8	262.5	3623.3	1.65	22.79
25.0-26.0	5709.5	269.5	3892.9	1.70	24.49
26.0-27.0	5645.7	276.2	4169.1	1.74	26.22
27.0-28.0	5581.3	282.6	4451.8	1.78	28.00
28.0-29.0	5516.7	288.7	4740.4	1.82	29.82
29.0-30.0	5452.8	294.5	5034.9	1.85	31.67
30.0-31.0	5387.6	299.9	5334.7	1.89	33.55
31.0-32.0	5325.1	305.1	5639.8	1.92	35.47
32.0-33.0	5266.2	310.3	5950.1	1.95	37.43
33.0-34.0	5209.1	315.3	6265.4	1.98	39.41
34.0-35.0	5155.1	320.2	6585.6	2.01	41.42
35.0-36.0	5100.1	324.8	6910.4	2.04	43.47

C Plane (°):0.0-90.0: 10.0
 Test Lab: EF0004-15062016
 Test Type: TYPE C
 Temperature: 30
 Operator: Jacob Vitoria

Gamma Plane (°):0.0-90.0:1.0
 Test Device: LSG-1800B
 Distance: 6.933 m
 Humidity: 50
 Inspector:

Zonal Lumen (Continue 1)

Gamma [°]	I _{mean} [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
36.0-37.0	5040.4	328.8	7239.2	2.07	45.53
37.0-38.0	4975.7	332.2	7571.3	2.09	47.62
38.0-39.0	4906.5	334.9	7906.3	2.11	49.73
39.0-40.0	4828.6	336.8	8243.1	2.12	51.85
40.0-41.0	4743.2	337.8	8580.9	2.12	53.97
41.0-42.0	4654.0	338.2	8919.1	2.13	56.10
42.0-43.0	4555.4	337.5	9256.5	2.12	58.22
43.0-44.0	4450.6	336.0	9592.5	2.11	60.34
44.0-45.0	4345.1	334.0	9926.5	2.10	62.44
45.0-46.0	4235.7	331.3	10257.8	2.08	64.52
46.0-47.0	4116.8	327.5	10585.2	2.06	66.58
47.0-48.0	3994.4	323.0	10908.2	2.03	68.61
48.0-49.0	3879.0	318.6	11226.8	2.00	70.62
49.0-50.0	3763.4	313.8	11540.6	1.97	72.59
50.0-51.0	3641.2	308.1	11848.7	1.94	74.53
51.0-52.0	3513.6	301.5	12150.2	1.90	76.42
52.0-53.0	3374.9	293.6	12443.9	1.85	78.27
53.0-54.0	3222.9	284.1	12728.0	1.79	80.06
54.0-55.0	3077.3	274.7	13002.7	1.73	81.79
55.0-56.0	2938.3	265.5	13268.2	1.67	83.46
56.0-57.0	2775.9	253.8	13522.1	1.60	85.05
57.0-58.0	2612.9	241.7	13763.7	1.52	86.57
58.0-59.0	2466.2	230.6	13994.3	1.45	88.02
59.0-60.0	2292.1	216.6	14210.9	1.36	89.39
60.0-61.0	2126.1	202.9	14413.8	1.28	90.66
61.0-62.0	1977.1	190.5	14604.4	1.20	91.86
62.0-63.0	1810.4	176.1	14780.5	1.11	92.97
63.0-64.0	1647.0	161.6	14942.1	1.02	93.98
64.0-65.0	1479.2	146.4	15088.5	0.92	94.91
65.0-66.0	1325.9	132.3	15220.8	0.83	95.74
66.0-67.0	1175.0	118.2	15339.0	0.74	96.48
67.0-68.0	1020.5	103.4	15442.4	0.65	97.13
68.0-69.0	871.1	88.9	15531.2	0.56	97.69
69.0-70.0	726.6	74.6	15605.9	0.47	98.16
70.0-71.0	599.2	61.9	15667.8	0.39	98.55
71.0-72.0	482.1	50.1	15717.9	0.32	98.86

C Plane (°):0.0-90.0: 10.0
 Test Lab: EF0004-15062016
 Test Type: TYPE C
 Temperature: 30
 Operator: Jacob Vitoria

Gamma Plane (°):0.0-90.0:1.0
 Test Device: LSG-1800B
 Distance: 6.933 m
 Humidity: 50
 Inspector:

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1800B
Distance: 6.933 m
Humidity: 50
Inspector:

Candlepower Table

Unit: cd

G\C	C0.0	C10.0	C20.0	C30.0	C40.0	C50.0	C60.0	C70.0	C80.0	C90.0
G0.0	6663.6	6662.3	6661.6	6658.8	6657.5	6651.5	6650.8	6641.2	6638.2	6619.0
G1.0	6665.1	6660.3	6653.0	6644.5	6638.9	6634.9	6634.4	6632.1	6626.8	6614.5
G2.0	6664.3	6653.5	6645.0	6643.4	6646.2	6648.3	6643.5	6624.1	6619.5	6595.9
G3.0	6654.1	6638.5	6636.0	6645.2	6642.5	6618.5	6613.0	6601.7	6596.9	6578.1
G4.0	6640.5	6623.6	6628.9	6626.8	6609.5	6602.4	6602.4	6590.1	6582.4	6558.5
G5.0	6632.7	6617.0	6624.8	6600.9	6590.7	6579.1	6575.8	6539.3	6533.8	6511.0
G6.0	6621.1	6606.0	6611.1	6583.6	6571.6	6536.4	6524.8	6518.3	6515.9	6499.9
G7.0	6600.7	6586.3	6585.1	6560.8	6545.9	6506.1	6506.9	6502.7	6499.1	6461.2
G8.0	6579.6	6565.5	6556.9	6528.6	6504.4	6489.1	6487.0	6446.1	6440.8	6418.7
G9.0	6558.2	6543.3	6529.3	6491.3	6472.9	6460.1	6434.2	6425.0	6435.5	6429.0
G10.0	6529.6	6514.2	6500.4	6451.9	6445.8	6415.1	6411.9	6433.3	6450.3	6436.7
G11.0	6493.8	6480.5	6461.2	6414.9	6415.6	6383.7	6415.8	6420.9	6423.4	6372.4
G12.0	6459.9	6441.6	6421.2	6373.6	6376.2	6371.6	6406.5	6354.6	6355.0	6309.3
G13.0	6428.7	6403.8	6380.2	6338.2	6338.4	6357.6	6361.1	6292.7	6300.4	6258.0
G14.0	6384.9	6355.1	6332.1	6294.7	6302.2	6316.1	6291.1	6242.4	6246.2	6212.7
G15.0	6339.5	6308.8	6279.0	6247.4	6271.8	6255.9	6227.0	6192.1	6201.8	6177.5
G16.0	6298.0	6261.0	6227.6	6196.9	6238.4	6187.8	6177.5	6158.3	6172.9	6165.9
G17.0	6253.7	6207.2	6180.2	6149.5	6194.1	6124.0	6132.9	6136.8	6166.9	6167.7
G18.0	6198.1	6151.5	6127.7	6106.1	6127.4	6067.4	6095.0	6123.2	6156.4	6121.4
G19.0	6146.1	6096.5	6075.9	6061.3	6055.6	6015.5	6069.9	6085.4	6096.0	6054.3
G20.0	6099.5	6041.9	6024.9	6008.5	5990.1	5971.3	6039.7	6033.6	6039.7	6023.1
G21.0	6048.4	5984.1	5973.1	5950.2	5930.1	5928.8	5993.9	5983.3	6010.7	5990.4
G22.0	5986.8	5922.3	5912.9	5889.1	5864.6	5881.5	5936.5	5938.9	5958.2	5917.5
G23.0	5928.5	5858.1	5855.6	5824.7	5807.5	5829.0	5882.5	5880.8	5894.1	5864.2
G24.0	5866.4	5794.5	5800.1	5747.9	5756.8	5767.8	5830.4	5825.4	5849.3	5822.2
G25.0	5796.8	5727.4	5740.0	5679.5	5703.9	5707.0	5768.8	5776.1	5796.7	5754.5
G26.0	5731.8	5655.5	5670.7	5616.5	5651.9	5649.4	5700.2	5712.5	5727.9	5691.7
G27.0	5655.7	5582.8	5607.4	5549.6	5594.8	5586.0	5641.9	5649.6	5668.2	5637.0
G28.0	5579.9	5511.0	5541.2	5478.4	5527.4	5518.1	5575.4	5589.0	5615.4	5581.7
G29.0	5505.0	5436.4	5472.9	5412.7	5465.8	5453.8	5511.8	5531.0	5562.6	5527.9
G30.0	5426.5	5365.2	5394.9	5347.6	5399.9	5394.4	5442.5	5472.1	5511.8	5491.4
G31.0	5346.9	5288.1	5313.4	5270.6	5325.3	5323.9	5375.3	5418.6	5471.3	5457.3
G32.0	5275.4	5218.8	5238.5	5205.0	5263.9	5256.3	5311.4	5374.0	5440.9	5431.8
G33.0	5203.0	5150.7	5164.8	5125.0	5185.2	5190.9	5253.6	5335.8	5414.2	5415.3
G34.0	5126.3	5076.5	5089.3	5049.6	5114.0	5125.6	5208.5	5300.8	5395.6	5423.1
G35.0	5044.9	5003.9	5005.4	4981.7	5037.6	5059.9	5168.3	5271.4	5395.1	5423.5
G36.0	4963.1	4924.9	4930.1	4904.6	4954.1	4988.7	5127.3	5258.8	5386.3	5375.1

C Plane (°):0.0-90.0: 10.0
 Test Lab: EF0004-15062016
 Test Type: TYPE C
 Temperature: 30
 Operator: Jacob Vitoria

Gamma Plane (°):0.0-90.0:1.0
 Test Device: LSG-1800B
 Distance: 6.933 m
 Humidity: 50
 Inspector:

Candlepower Table (Continue 1)

Unit: cd

G\C	C0.0	C10.0	C20.0	C30.0	C40.0	C50.0	C60.0	C70.0	C80.0	C90.0
G37.0	4884.9	4849.9	4853.0	4830.9	4871.3	4930.1	5084.8	5233.2	5335.0	5306.9
G38.0	4809.2	4769.2	4783.1	4756.2	4795.8	4870.6	5048.9	5182.7	5263.8	5206.0
G39.0	4731.3	4700.3	4710.8	4676.4	4726.7	4817.3	5015.7	5105.2	5171.1	5099.7
G40.0	4641.0	4615.3	4629.1	4598.5	4649.3	4747.9	4969.7	5012.4	5051.9	4963.1
G41.0	4566.1	4538.4	4555.4	4520.7	4570.0	4684.2	4905.0	4898.4	4923.6	4844.6
G42.0	4456.1	4440.6	4473.7	4445.3	4495.4	4629.6	4821.3	4779.6	4795.9	4723.4
G43.0	4315.1	4284.3	4389.8	4364.1	4435.0	4563.8	4724.9	4646.7	4675.0	4568.6
G44.0	4213.2	4184.1	4272.1	4279.8	4371.4	4490.8	4600.2	4524.8	4530.6	4450.6
G45.0	4124.0	4107.3	4132.3	4192.9	4292.2	4404.1	4482.5	4393.6	4407.6	4301.2
G46.0	4019.6	4006.7	4040.9	4075.9	4217.8	4302.5	4355.3	4261.5	4265.0	4162.9
G47.0	3862.1	3844.1	3958.0	3933.9	4145.8	4196.8	4223.6	4119.7	4120.4	4022.8
G48.0	3754.3	3744.9	3834.7	3831.9	4071.3	4070.8	4081.2	3979.8	3975.3	3896.4
G49.0	3665.0	3658.9	3682.9	3753.2	3991.7	3951.9	3935.8	3844.0	3861.7	3788.2
G50.0	3520.1	3507.1	3593.1	3647.7	3874.7	3832.2	3803.8	3716.8	3756.8	3684.9
G51.0	3387.1	3380.9	3501.3	3503.5	3724.9	3702.7	3657.0	3602.1	3651.6	3577.5
G52.0	3295.3	3278.9	3333.5	3411.5	3608.4	3562.2	3526.7	3497.7	3529.5	3285.3
G53.0	3143.0	3139.6	3222.2	3312.2	3491.2	3430.1	3407.5	3388.8	3217.6	3057.4
G54.0	3007.6	3000.9	3127.8	3166.8	3343.4	3288.6	3295.9	3071.8	3024.3	2957.4
G55.0	2917.3	2896.2	2977.2	3063.9	3179.4	3109.2	3192.9	2885.6	2927.2	2797.4
G56.0	2753.9	2733.1	2856.0	2967.6	3058.2	2984.7	3040.6	2783.1	2758.2	2482.8
G57.0	2633.7	2626.2	2739.6	2794.9	2912.8	2861.5	2712.1	2563.5	2448.3	2380.0
G58.0	2501.7	2496.2	2577.4	2680.9	2728.3	2741.9	2605.5	2319.6	2349.8	2232.6
G59.0	2363.4	2357.8	2482.8	2555.0	2592.0	2510.2	2497.2	2214.2	2156.4	1954.2
G60.0	2233.9	2226.3	2318.6	2396.3	2461.2	2246.7	2172.8	1952.7	1913.8	1857.1
G61.0	2095.8	2086.7	2211.9	2279.9	2303.7	2138.3	2061.4	1795.7	1820.9	1580.2
G62.0	1968.8	1963.3	2063.1	2100.9	2181.6	1946.1	1891.3	1658.7	1526.0	1470.3
G63.0	1844.8	1832.0	1959.2	1978.6	2025.9	1707.2	1624.8	1414.8	1439.4	1263.1
G64.0	1694.2	1673.8	1806.1	1816.6	1793.0	1585.0	1528.2	1321.2	1179.4	1119.6
G65.0	1579.0	1558.4	1689.7	1675.6	1608.2	1331.5	1251.8	1070.5	1092.4	894.5
G66.0	1448.3	1433.6	1552.8	1535.3	1500.1	1223.1	1152.3	967.9	851.3	823.3
G67.0	1313.7	1296.8	1411.5	1389.6	1251.4	1020.2	928.0	774.3	764.8	609.3
G68.0	1184.4	1164.9	1284.3	1259.6	1142.9	901.3	834.4	578.9	587.2	449.4
G69.0	1056.5	1035.4	1150.0	1052.1	940.0	707.2	644.2	482.8	399.4	340.0
G70.0	941.5	916.8	1029.5	927.9	824.9	610.6	477.1	350.1	252.7	218.5
G71.0	832.3	809.5	904.8	791.7	651.0	476.3	376.2	205.2	139.8	90.8
G72.0	728.2	701.4	773.8	642.0	558.2	340.7	267.0	87.2	87.2	81.8
G73.0	623.7	584.4	664.6	519.1	427.8	229.8	159.4	78.5	77.9	73.6

C Plane (°):0.0-90.0: 10.0
 Test Lab: EF0004-15062016
 Test Type: TYPE C
 Temperature: 30
 Operator: Jacob Vitoria

Gamma Plane (°):0.0-90.0:1.0
 Test Device: LSG-1800B
 Distance: 6.933 m
 Humidity: 50
 Inspector:

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1800B
Distance: 6.933 m
Humidity: 50
Inspector:

CONTROLLED

LABORATORIO: FOTOMETRÍA

TEST DE LABORATORIO: EF0004--15062016

Ensayo fotométrico lámpara / luminaria (24 semiejes - resolución 1º + IES)

Generación de informe Completo del ensayo:

- A.- Distribución angular de intensidad luminosa en cd/Klm:
 - Representación gráfica.
 - Tabla de mediciones candelas.
- B.- Curvas isolux:
 - Representación isocandela rectangular.
 - Representación isocandela esférica.
- C.- Eficiencia luminosa.
 - Eficacia y consumo.
 - Curva CU calle / acera.
- D.- Determinación del ángulo de apertura e iluminancias, luminoso emitido y flujos zonales:
 - Distribución del flujo (IESNA).
 - Gráfico LCS.
 - Curva de luminancia límite.
 - Representación de la luminancia según distancia.
 - Figura de luminancia efectiva.
 - Tabla zonal.
 - Tabla UGR.

Ensayo espectral:

- Medida de la distribución espectral de la emisión luminosa de una lámpara.
- Medida de la temperatura de color de una lámpara.
- Coordenadas cromáticas.
- Medida del IRC.



Inspector Técnico: Jaime Peiró
Ingeniero Industrial Núm. Col. 5434

PROIETTORI LED per ESTERNI

Proiettore LED SMD 200W 120 lm/W



SCHEDA TECNICA

Potenza	200 W
Alimentazione	220-240V AC
Multitensione	85-265V AC
Frequenza	50-60 Hz
Intensità	0.877 A
Flusso Luminoso	20582 lm
Rendimento LED	120 lm/W
Efficienza Luminosa	107 lm/W
Fascio Luminoso	120°
CRI	85
Fattore di Potenza	0.95
Protezione IP	IP66
Protezione IK	IK08
Classe	I
Tipo di LED	Epistar-SMD2835
Numero di LED	500
Durata	30.000 ore
T° Amb Funzionamento	-20°C~+45°C
Dimensioni	382x284x185 mm
Materiale del Corpo	Alluminio/Cristallo
Diffusore	Trasparente
Certificati	CE & RoHS

DESCRIZIONE DEL PRODOTTO

Proiettore LED Epistar orientabile con il cornice magro ha una potenza di 200W, una alimentazione di AC 85-265V, un'efficienza di 120lm/W, una lente LED SMD e una luminosità di 20582 lm..

Il suo grado di protezione IP66 lo rende ideale per uso esterno.

Il suo indice di resa cromatica (CRI) è Ra>85, e ha una durata stimata di più di 30.000 ore.

È realizzato in alluminio e vetro. Con accensione immediata e senza sfarfallio restaura subito i condizioni di illuminazione prima di un'interruzione di corrente.

Alte prestazioni e massima efficienza energetica con luce luminosa e splendente.

Finitura d'alluminio ad iniezione. Ha un radiatore che garantisce un'ottima dissipazione del calore.

Ensayo Espectral Lightsource Test Report (1/2)

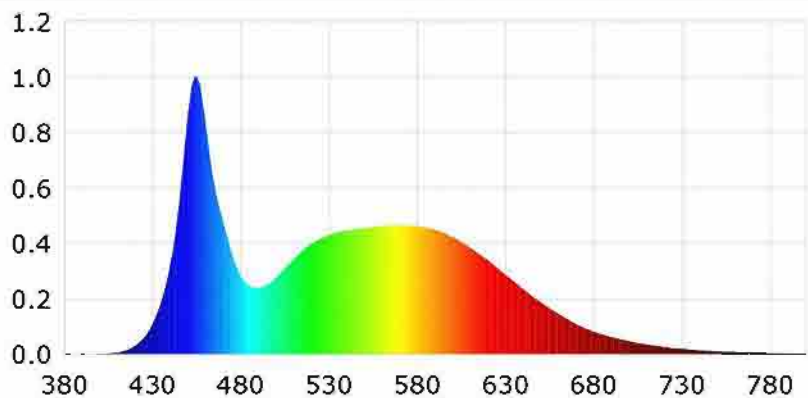
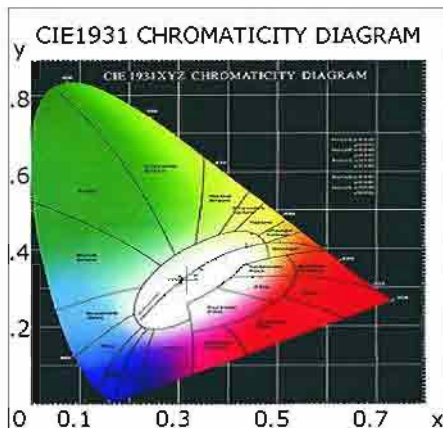
Product Information

Product Category: LED
Product Number: EF0006-16062016

Product Type: PROYECTOR-200W-6000K

CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.3158$ $y=0.3268$ $u(u')=0.2008$ $v=0.3117$ $v'=0.4676$
 CCT: $T_c=6356K$ ($duv=0.00050$) Color Ratio: $R=0.139$ $G=0.802$ $B=0.059$
 Peak Wavelength: 454.4nm Half Bandwidth: 24.8nm
 Dominant Wavelength: 486.8nm Color Purity: 0.064
 Color Render Index: $R_a=85.6$, $avgR(1\sim14)=78.4$, $avgR(1\sim15)=78.9$
 $R1=86$ $R2=89$ $R3=86$ $R4=88$ $R5=84$ $R6=80$ $R7=93$ $R8=80$
 $R9=31$ $R10=68$ $R11=86$ $R12=49$ $R13=87$ $R14=92$ $R15=85$



Photometric Parameters

Luminous Flux: 20581.85 lm Efficiency: 107.70 lm/W Radiant Power: 66.881 W
 Circupic Flux: 89497.18 lm

Electric Parameters

Voltage: 230.10V Current: 0.8770A Power: 191.10W
 Power Factor: 0.9460 Frequency: 49.99Hz

BIN: OUT :

Test Information

Scan Range: 380~800:1nm Photometric Method: Esfera integradora
 Stabilization Time: 30 Min Photometric Condition: Sphere diameter: 2.00m, 4PI
 Max of Signal: 45537 (3540) CCD Integration Time: 28.54 ms

Condition: $T_x:31.8^{\circ}C$, $T_i:25^{\circ}C$, R.H.:60%
 Test Lab:
 Operator: Jacob Vitoria

Test Device: Lisun LMS-9000A(Plus)
 Test Time: 2016-06-16 15:49:58
 Inspector:

Ensayo Espectral Lightsource Test Report (2/2)

WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0024	1.6434	525	0.4143	284.2632	670	0.1079	73.9969
385	0.0003	0.2211	530	0.4287	294.0984	675	0.0934	64.0847
390	0.0014	0.9912	535	0.4385	300.8071	680	0.0809	55.4901
395	0.0007	0.4487	540	0.4449	305.2284	685	0.0710	48.7169
400	0.0015	1.0629	545	0.4499	308.6837	690	0.0622	42.6982
405	0.0031	2.0988	550	0.4549	312.1114	695	0.0541	37.0948
410	0.0064	4.4025	555	0.4585	314.5637	700	0.0471	32.3407
415	0.0149	10.2084	560	0.4614	316.5539	705	0.0404	27.7491
420	0.0302	20.7320	565	0.4637	318.1484	710	0.0345	23.6388
425	0.0599	41.0864	570	0.4654	319.2809	715	0.0304	20.8338
430	0.1109	76.0932	575	0.4633	317.8682	720	0.0257	17.6215
435	0.1953	133.9769	580	0.4610	316.2788	725	0.0219	15.0180
440	0.3288	225.6078	585	0.4562	312.9924	730	0.0196	13.4271
445	0.5496	377.0416	590	0.4479	307.2672	735	0.0160	10.9647
450	0.8692	596.2908	595	0.4376	300.2136	740	0.0138	9.4582
455	0.9994	685.6211	600	0.4217	289.2813	745	0.0122	8.3730
460	0.8272	567.5432	605	0.4034	276.7436	750	0.0103	7.0473
465	0.6052	415.2151	610	0.3824	262.3181	755	0.0089	6.0949
470	0.4729	324.4592	615	0.3594	246.5858	760	0.0081	5.5737
475	0.3593	246.4993	620	0.3372	231.3635	765	0.0066	4.4963
480	0.2798	191.9461	625	0.3118	213.9050	770	0.0055	3.7577
485	0.2465	169.1453	630	0.2857	196.0058	775	0.0049	3.3477
490	0.2395	164.3099	635	0.2602	178.4804	780	0.0036	2.4729
495	0.2510	172.2221	640	0.2334	160.1186	785	0.0025	1.7043
500	0.2776	190.4458	645	0.2085	143.0688	790	0.0039	2.7001
505	0.3108	213.2212	650	0.1865	127.9793	795	0.0023	1.5460
510	0.3446	236.3951	655	0.1645	112.8348	800	0.0014	0.9705
515	0.3734	256.1798	660	0.1442	98.9061			
520	0.3971	272.4635	665	0.1264	86.7086			

Condition: Tx:31.8'C, Ti:25'C, R.H.:60%
Test Lab:
Operator: Jacob Vitoria

Test Device: Lisun LMS-9000A(Plus)
Test Time: 2016-06-16 15:49:58
Inspector:

Report No.: 1

Test Time: 16/06/2016 12:20

Luminaire Property

Luminaire Manufacturer:

Luminaire Category: LED

Luminaire Description: PROYECTOR-200W-6000K

Lamp Description: LED EPISTAR

Luminous Length (mm): 230

Luminous Height (mm): 2

Current: 0.873 A

Power Factor: 0.945

Number of Lamps: 500

Luminous Width (mm): 75

Voltage: 231.9 V

Power: 191.54 W

Photometric Results

CIE Class: Direct

Measurement Flux: 20581.9 lm

Downward Ratio: 100%

Field Angle: H142.7 V133.2

Luminaire Efficacy Rating (LER): 107

Max. Intensity: 8993.84 cd

Total Rated Lamp Lumens: 20581.9 lm

Efficiency: 100%

Upward Ratio: 0%

Beam Angle: H102.2 V103.9

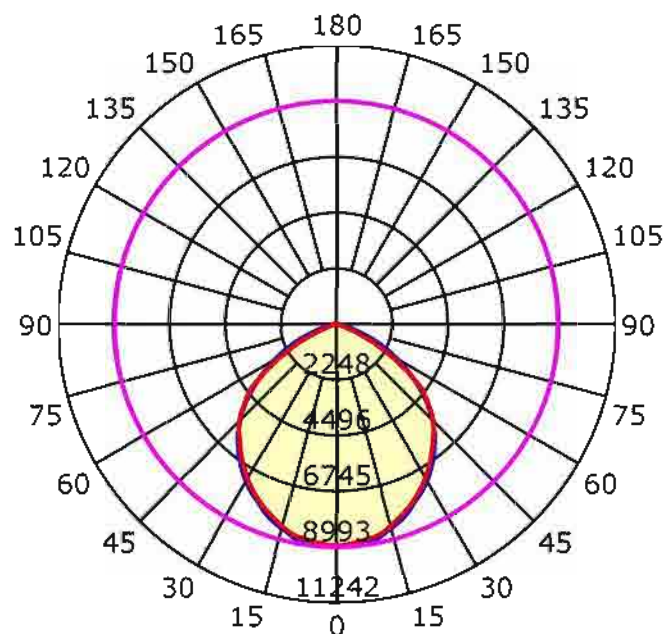
Central Intensity: 8993.83 cd

Pos of Max. Intensity: H0 V0

Picture Of Luminaire



Luminous Intensity Distribution Curve



Unit: cd

— C0-C180 — C90-C270 — G0

C Plane (°):0.0-90.0: 10.0

Test Lab: EF0006-16062016

Test Type: TYPE C

Temperature: 30

Operator: Jacob Vitoria

Gamma Plane (°):0.0-90.0:1.0

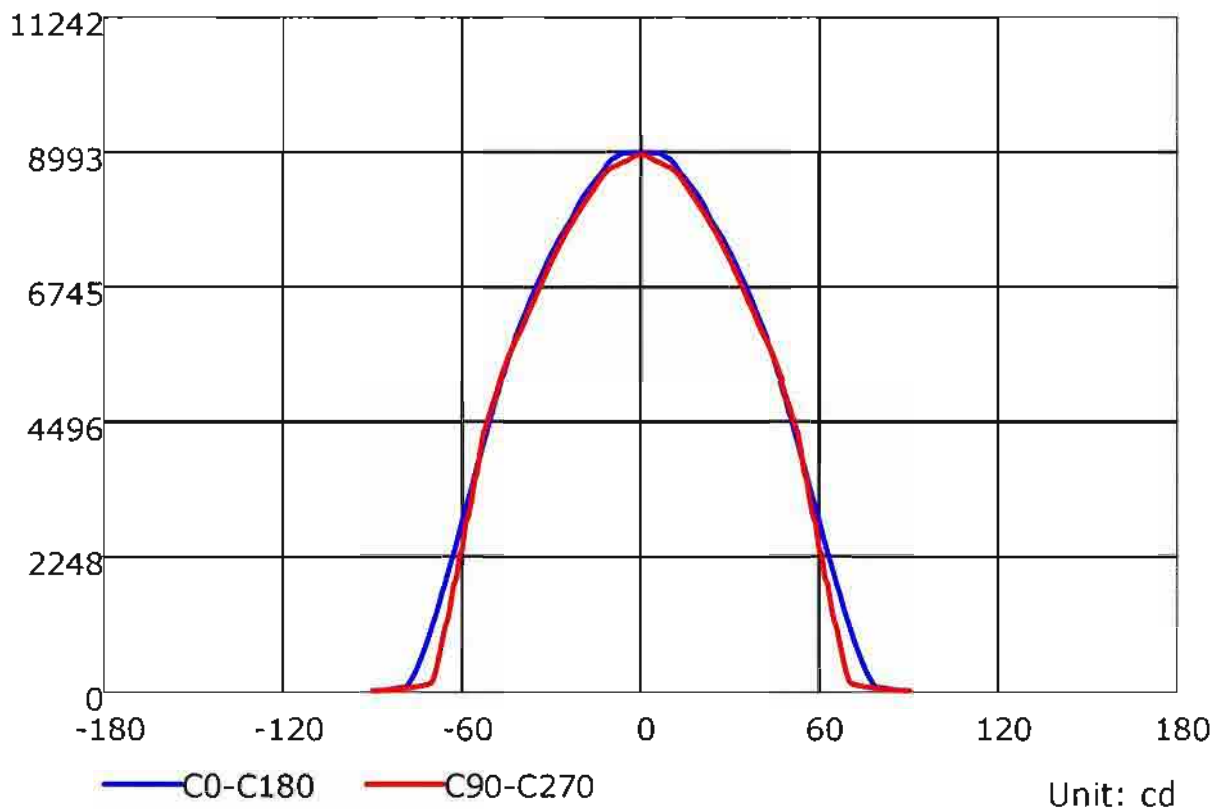
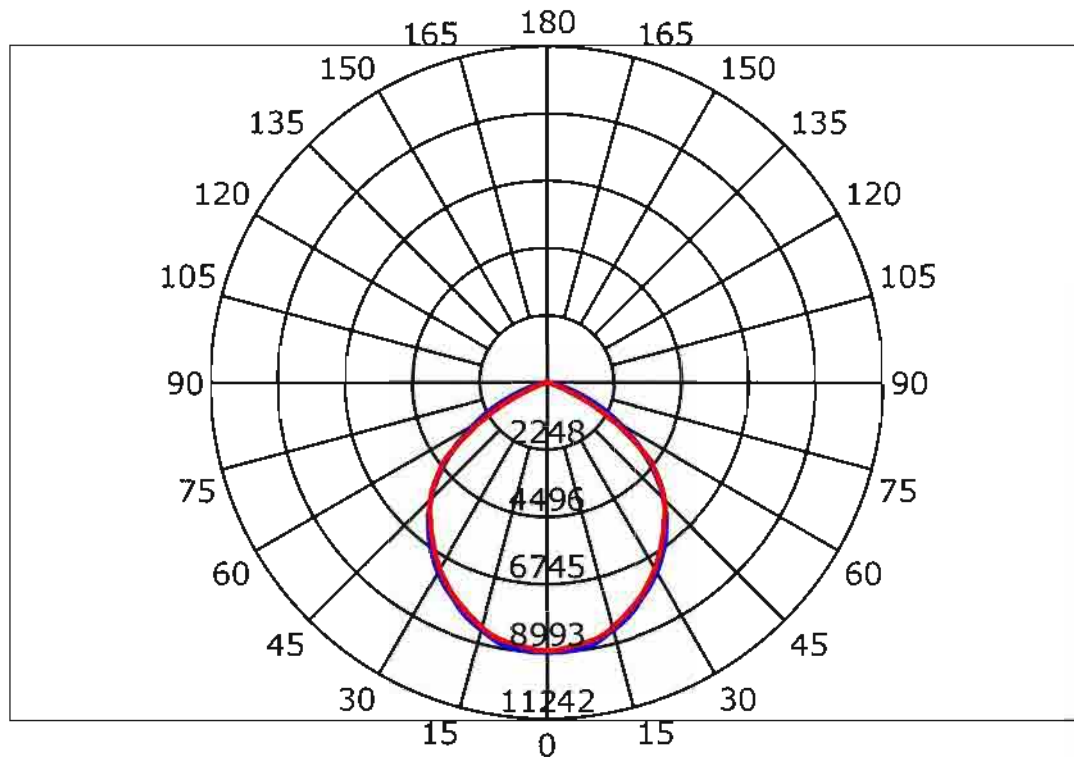
Test Device: LSG-1800B

Distance: 6.933 m

Humidity: 50

Inspector:

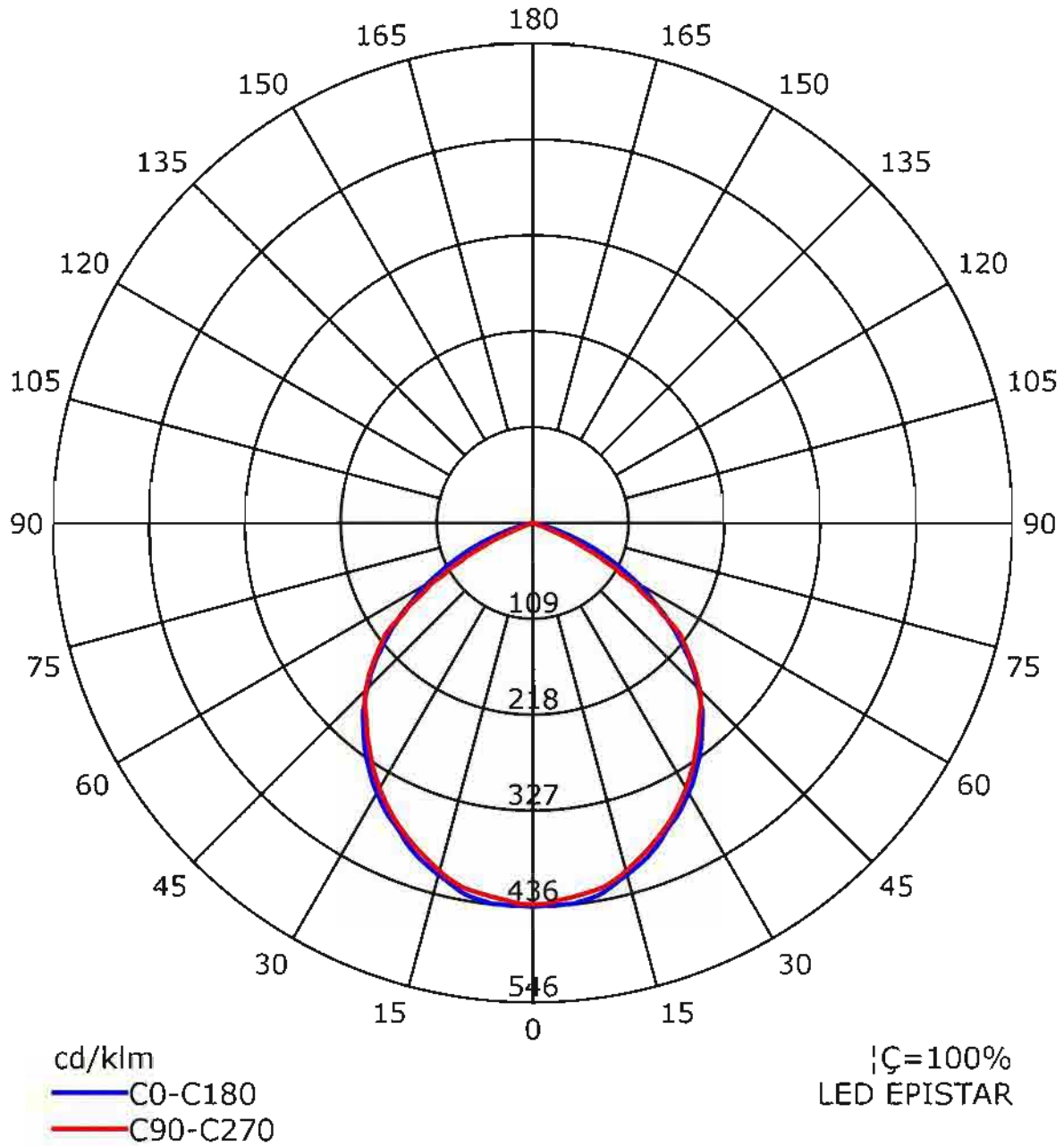
Luminous Intensity Distribution Curve



C Plane (°):0.0-90.0: 10.0
 Test Lab: EF0006-16062016
 Test Type: TYPE C
 Temperature: 30
 Operator: Jacob Vitoria

Gamma Plane (°):0.0-90.0:1.0
 Test Device: LSG-1800B
 Distance: 6.933 m
 Humidity: 50
 Inspector:

Luminous Intensity Distribution Curve(cd/klm)



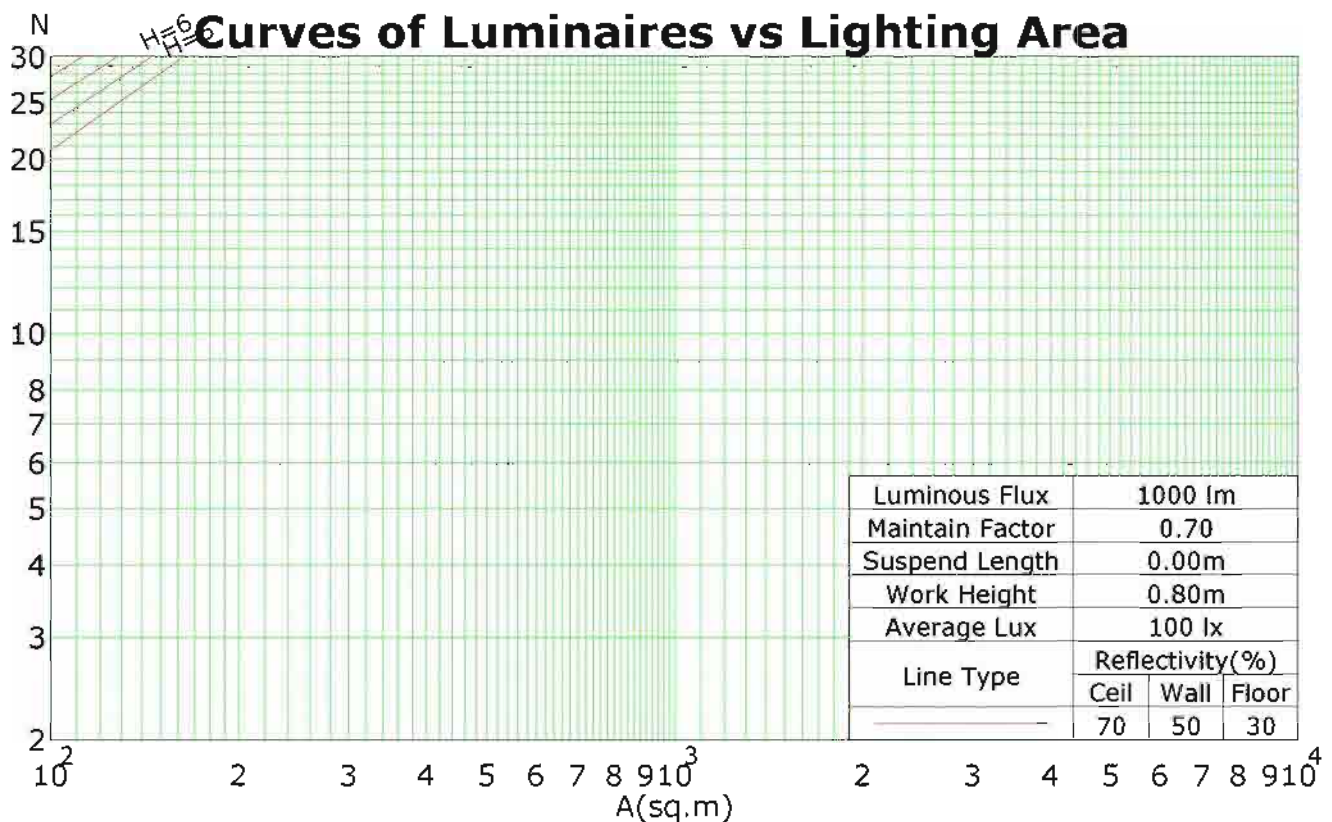
Coefficients Of Utilization - Zonal Cavity Method

RC	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.5	0.5	0.5	0.3	0.3	0.3	0.1	0.1	0.1	0
RW	0.7	0.5	0.3	0.1	0.7	0.5	0.3	0.1	0.5	0.3	0.1	0.5	0.3	0.1	0.5	0.3	0.1	0
RCR	RF = 0.2																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	103	100	108	105	101	99	100	98	95	97	95	93	93	91	90	88
2	102	95	89	84	100	93	88	83	90	85	81	86	83	79	84	80	78	76
3	94	84	77	71	91	83	76	71	80	74	70	77	73	68	75	71	67	65
4	86	75	68	61	84	74	67	61	72	65	60	70	64	59	67	63	59	57
5	80	68	60	53	78	67	59	53	65	58	53	63	57	52	61	56	52	50
6	74	61	53	47	72	60	53	47	59	52	46	57	51	46	56	50	46	44
7	69	56	48	42	67	55	47	42	54	46	41	52	46	41	51	45	41	39
8	64	51	43	37	62	50	43	37	49	42	37	48	42	37	47	41	37	35
9	60	47	39	34	58	46	39	34	45	38	34	44	38	33	43	37	33	31
10	56	43	36	31	55	43	36	31	42	35	31	41	35	30	40	34	30	29

Spacing Criteria (0-180): 1.21

Spacing Criteria (90-270): 1.20

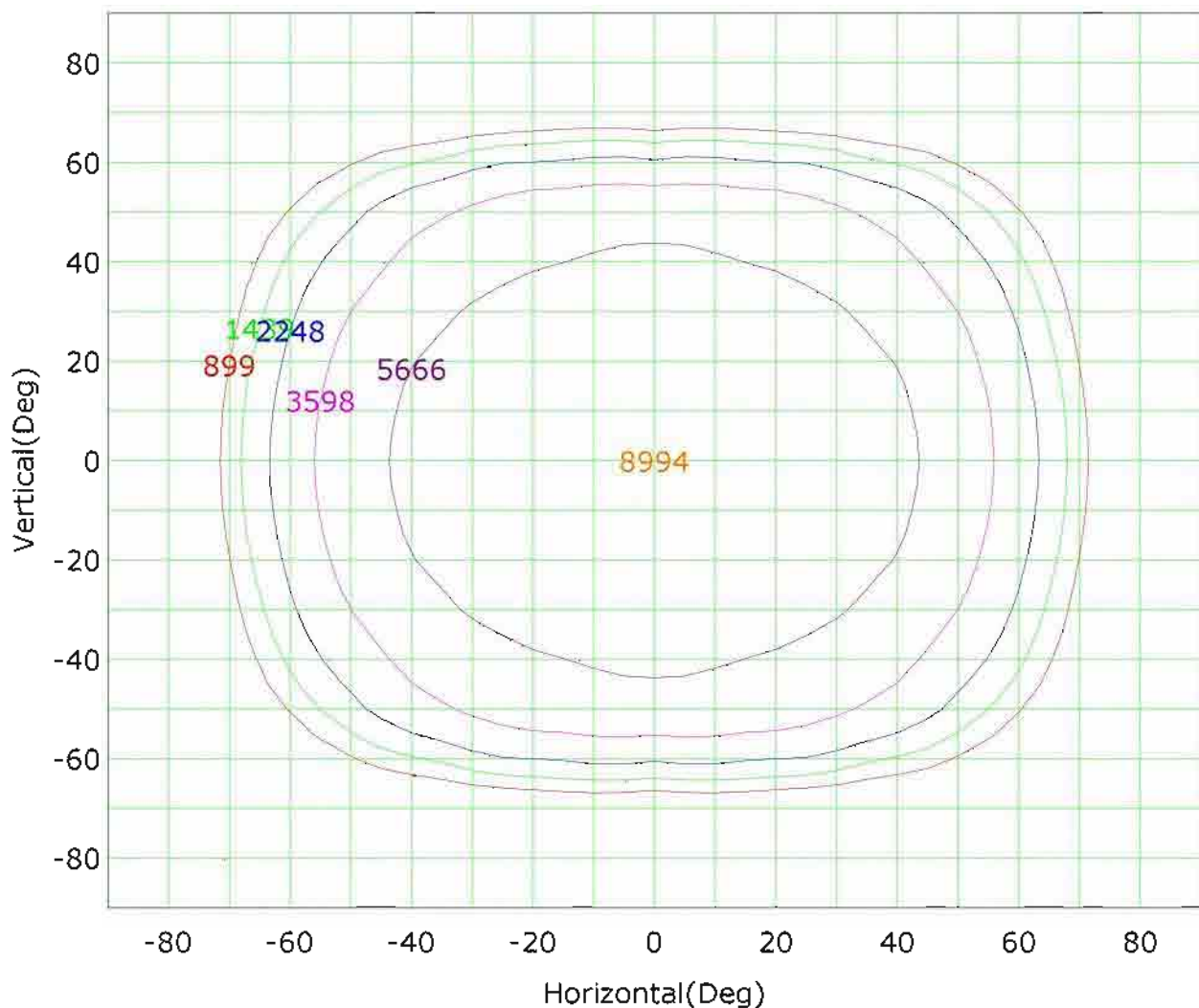
Spacing Criteria (Diagonal): 1.30



C Plane (°):0.0-90.0: 10.0
Test Lab: EF0006-16062016
Test Type: TYPE C
Temperature: 30
Operator: Jacob Vitoria

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1800B
Distance: 6.933 m
Humidity: 50
Inspector:

Isocandela (rectangle)



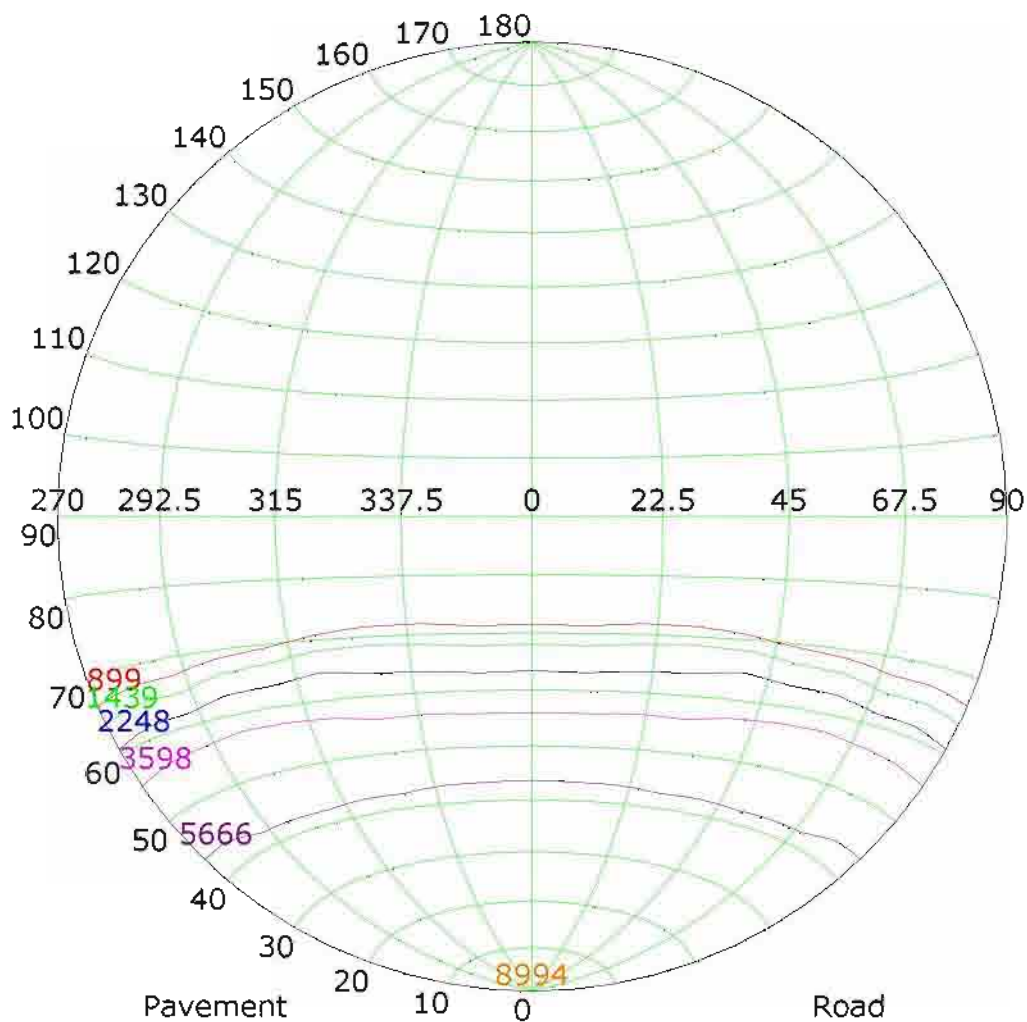
Imax (100%): 8994 cd

(10%): 899 cd	(16%): 1439 cd
(25%): 2248 cd	(40%): 3598 cd
(63%): 5666 cd	(100%): 8994 cd

C Plane (°):0.0-90.0: 10.0
 Test Lab: EF0006-16062016
 Test Type: TYPE C
 Temperature: 30
 Operator: Jacob Vitoria

Gamma Plane (°):0.0-90.0:1.0
 Test Device: LSG-1800B
 Distance: 6.933 m
 Humidity: 50
 Inspector:

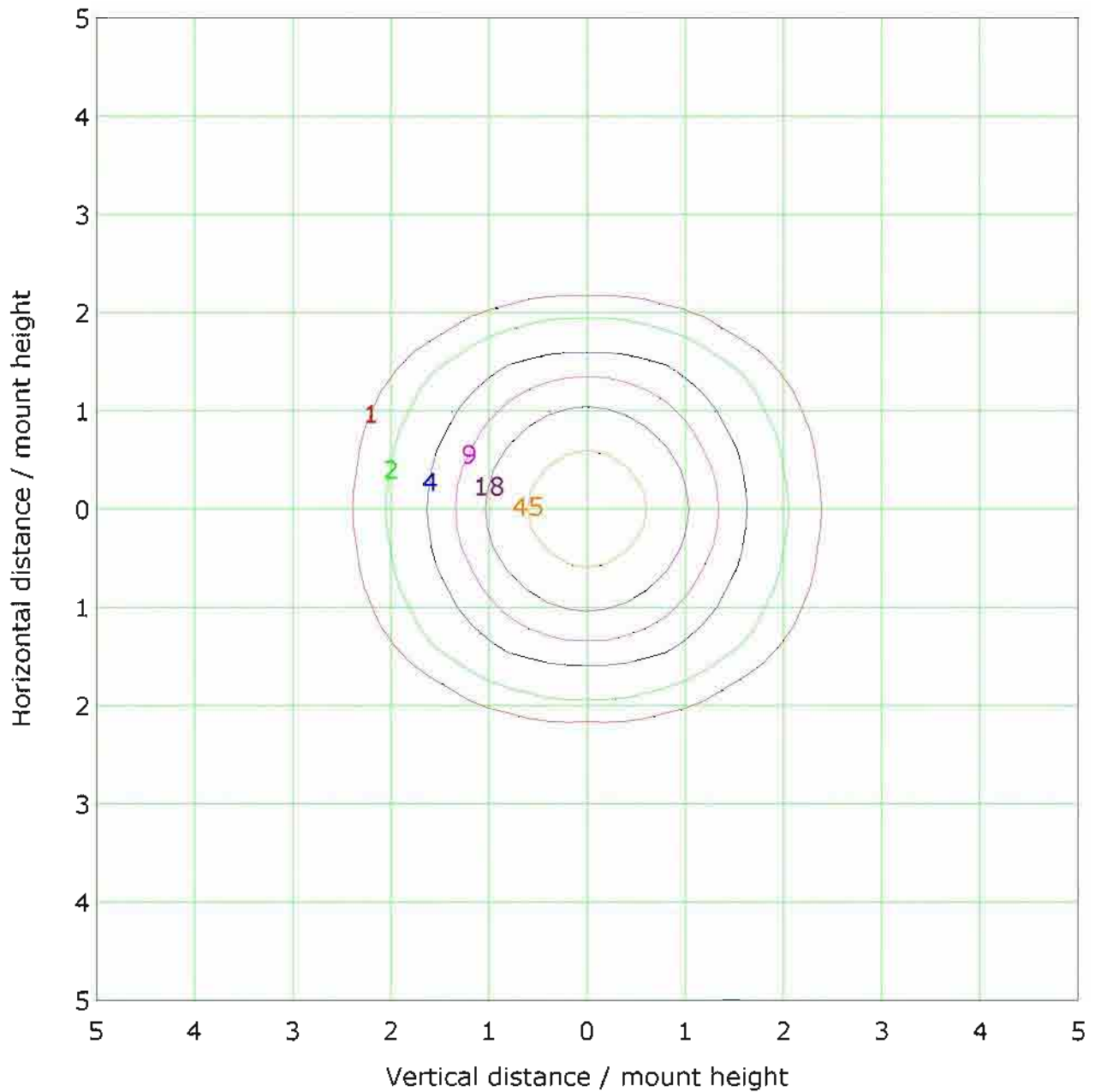
Isocandela (sphere)



Imax (100%): 8994 cd

(10%): 899 cd	(16%): 1439 cd
(25%): 2248 cd	(40%): 3598 cd
(63%): 5666 cd	(100%): 8994 cd

IsoLux Plot



Mounting Height: 10.0m Max Lux(100%): 89.9 lx

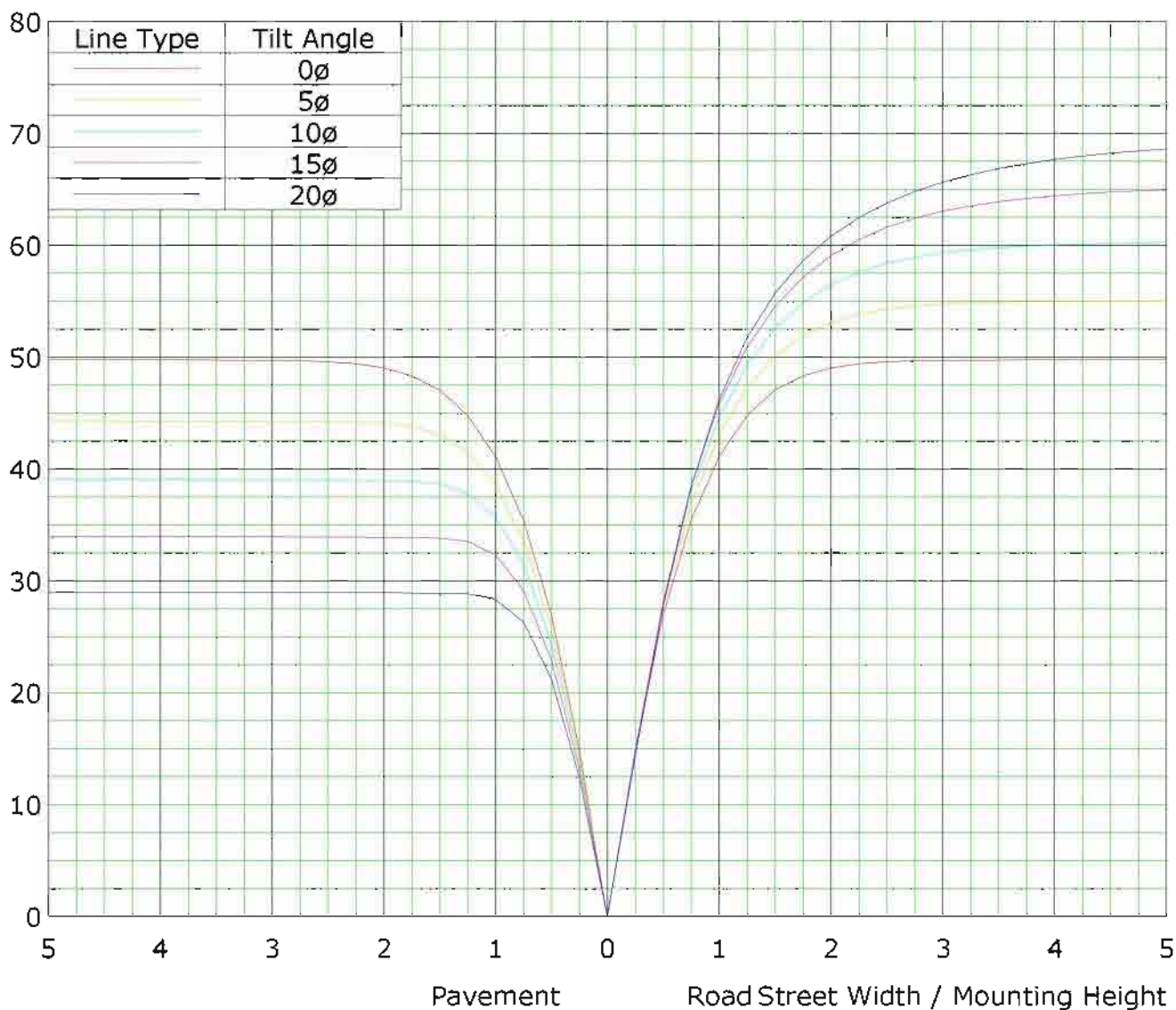
(1%): 0.9 lx	(2%): 1.8 lx
(5%): 4.5 lx	(10%): 9.0 lx
(20%): 18.0 lx	(50%): 45.0 lx
(100%): 89.9 lx	

C Plane (°):0.0-90.0: 10.0
 Test Lab: EF0006-16062016
 Test Type: TYPE C
 Temperature: 30
 Operator: Jacob Vitoria

Gamma Plane (°):0.0-90.0:1.0
 Test Device: LSG-1800B
 Distance: 6.933 m
 Humidity: 50
 Inspector:

Roadway CU Curve

Efficiency(%)



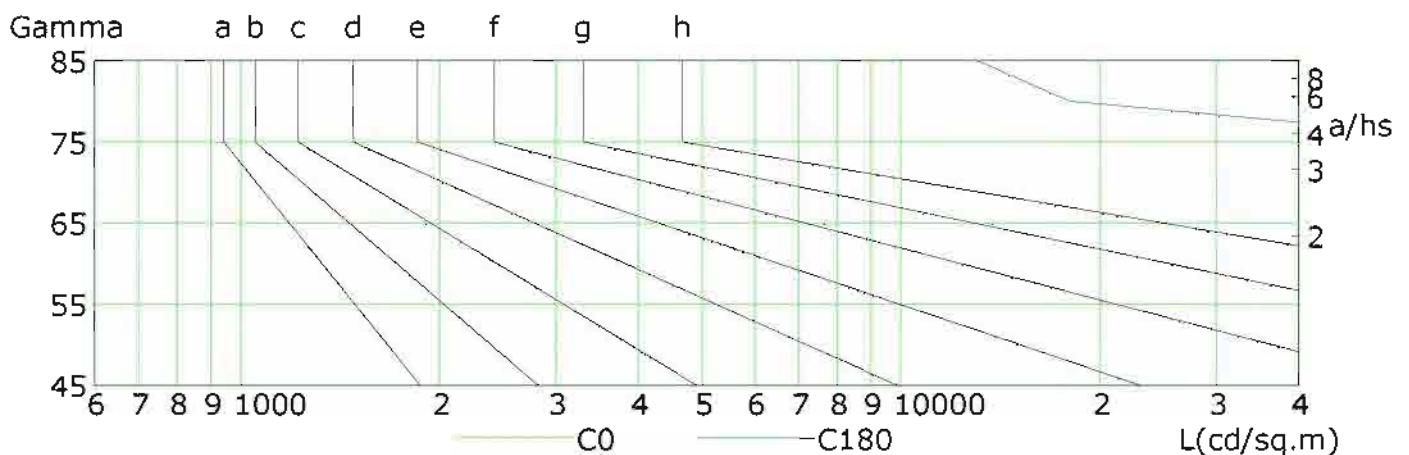
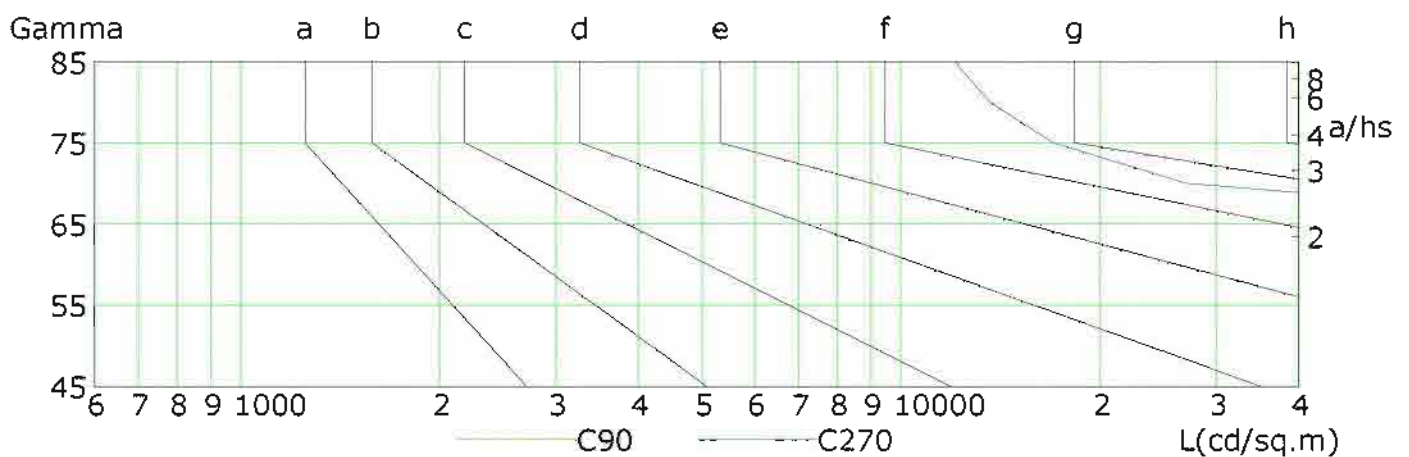
C Plane (°):0.0-90.0: 10.0
 Test Lab: EF0006-16062016
 Test Type: TYPE C
 Temperature: 30
 Operator: Jacob Vitoria

Gamma Plane (°):0.0-90.0:1.0
 Test Device: LSG-1800B
 Distance: 6.933 m
 Humidity: 50
 Inspector:

Lum Limit Curve

Dazzle	Quality	Illuminance (lx)							
1.15	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

a b c d e f g h

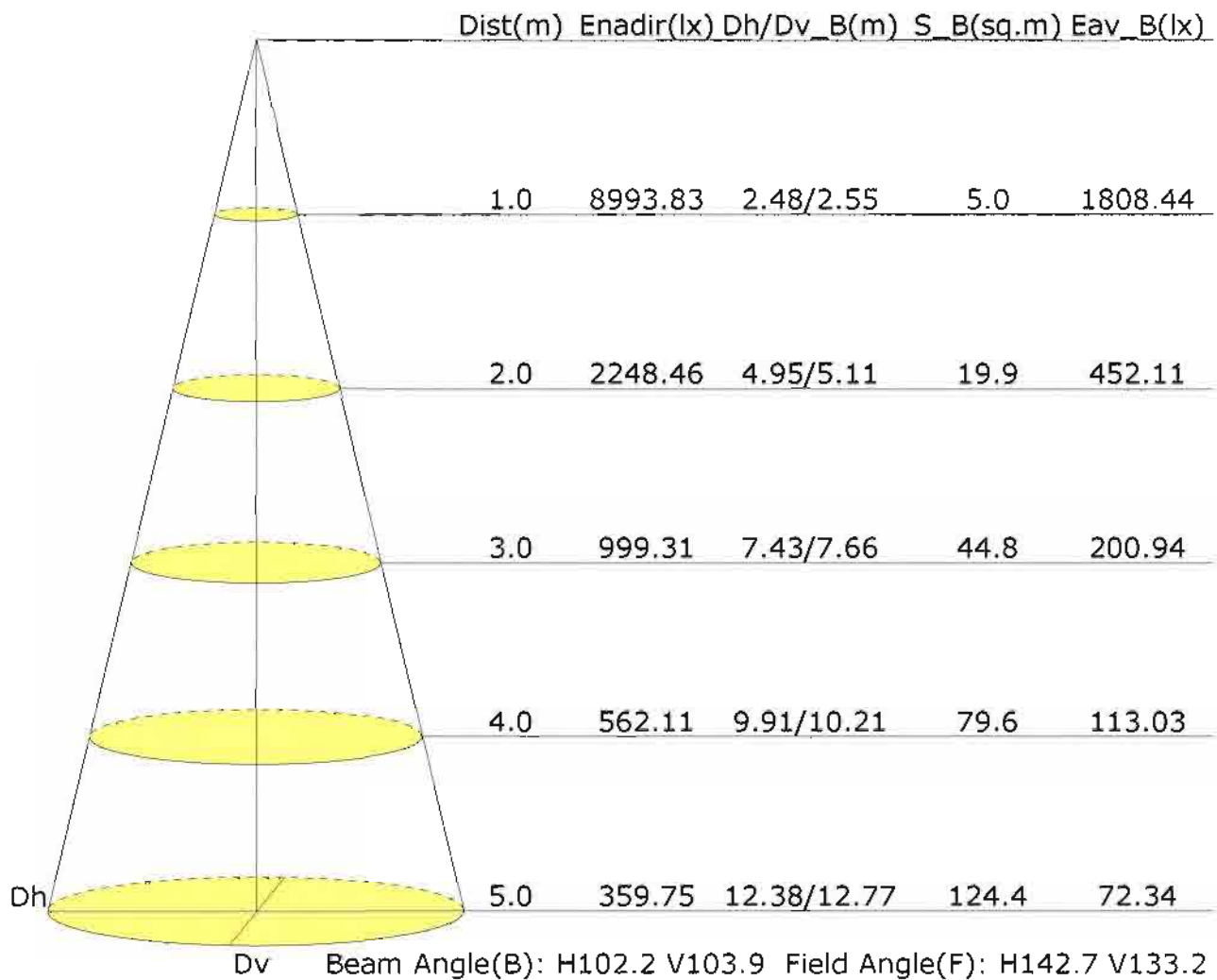


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	437830	407074	367821	316272	253796	174615	84617	18005	13035
C90	449383	426166	367003	271699	159800	27043	17000	13626	12052
C180	437830	407074	367821	316272	253796	174615	84617	18005	13035
C270	449383	426166	367003	271699	159800	27043	17000	13626	12052

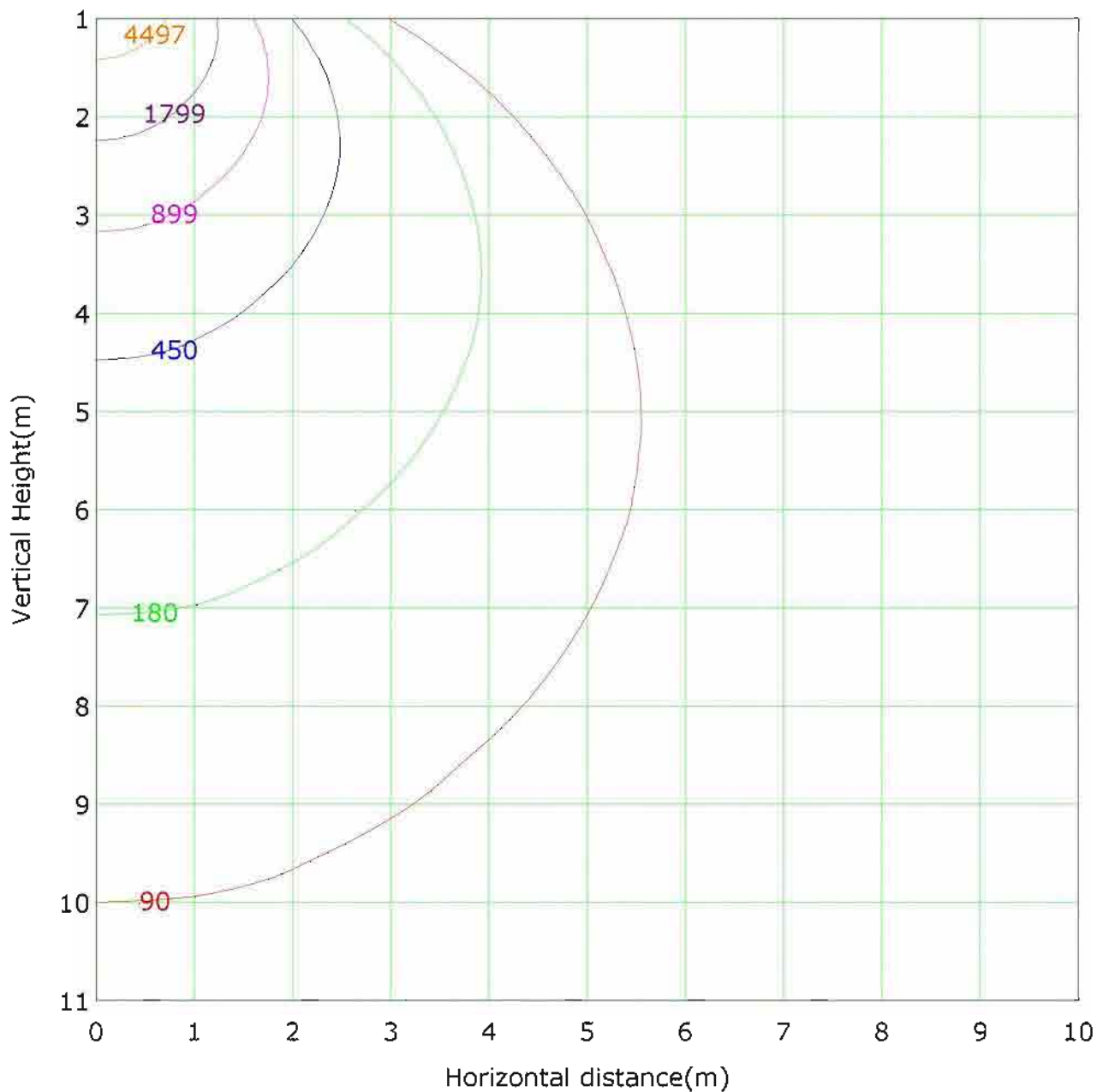
C Plane (°):0.0-90.0: 10.0
 Test Lab: EF0006-16062016
 Test Type: TYPE C
 Temperature: 30
 Operator: Jacob Vitoria

Gamma Plane (°):0.0-90.0:1.0
 Test Device: LSG-1800B
 Distance: 6.933 m
 Humidity: 50
 Inspector:

Illuminance at a Distance



Vertical IsoLux Plot



Lowest(m): 1.0m Highest(m): 11.0m Max Lux: 8993.8 lx

(1%): 89.9 lx	(2%): 179.9 lx
(5%): 449.7 lx	(10%): 899.4 lx
(20%): 1798.8 lx	(50%): 4496.9 lx
(100%): 8993.8 lx	

CONTROLLED

LABORATORIO: FOTOMETRÍA

TEST DE LABORATORIO: EF0006--16062016

Ensayo fotométrico lámpara / luminaria (24 semiejes - resolución 1º + IES)

Generación de informe Completo del ensayo:

- A.- Distribución angular de intensidad luminosa en cd/Klm:
 - Representación gráfica.
 - Tabla de mediciones candelas.
- B.- Curvas isolux:
 - Representación isocandela rectangular.
 - Representación isocandela esférica.
- C.- Eficiencia luminosa.
 - Eficacia y consumo.
 - Curva CU calle / acera.
- D.- Determinación del ángulo de apertura e iluminancias, luminoso emitido y flujos zonales:
 - Distribución del flujo (IESNA).
 - Gráfico LCS.
 - Curva de luminancia límite.
 - Representación de la luminancia según distancia.
 - Figura de luminancia efectiva.
 - Tabla zonal.
 - Tabla UGR.

Ensayo espectral:

- Medida de la distribución espectral de la emisión luminosa de una lámpara.
- Medida de la temperatura de color de una lámpara.
- Coordenadas cromáticas.
- Medida del IRC.



Inspector Técnico: Jaime Peiró
Ingeniero Industrial Núm. Col. 5434

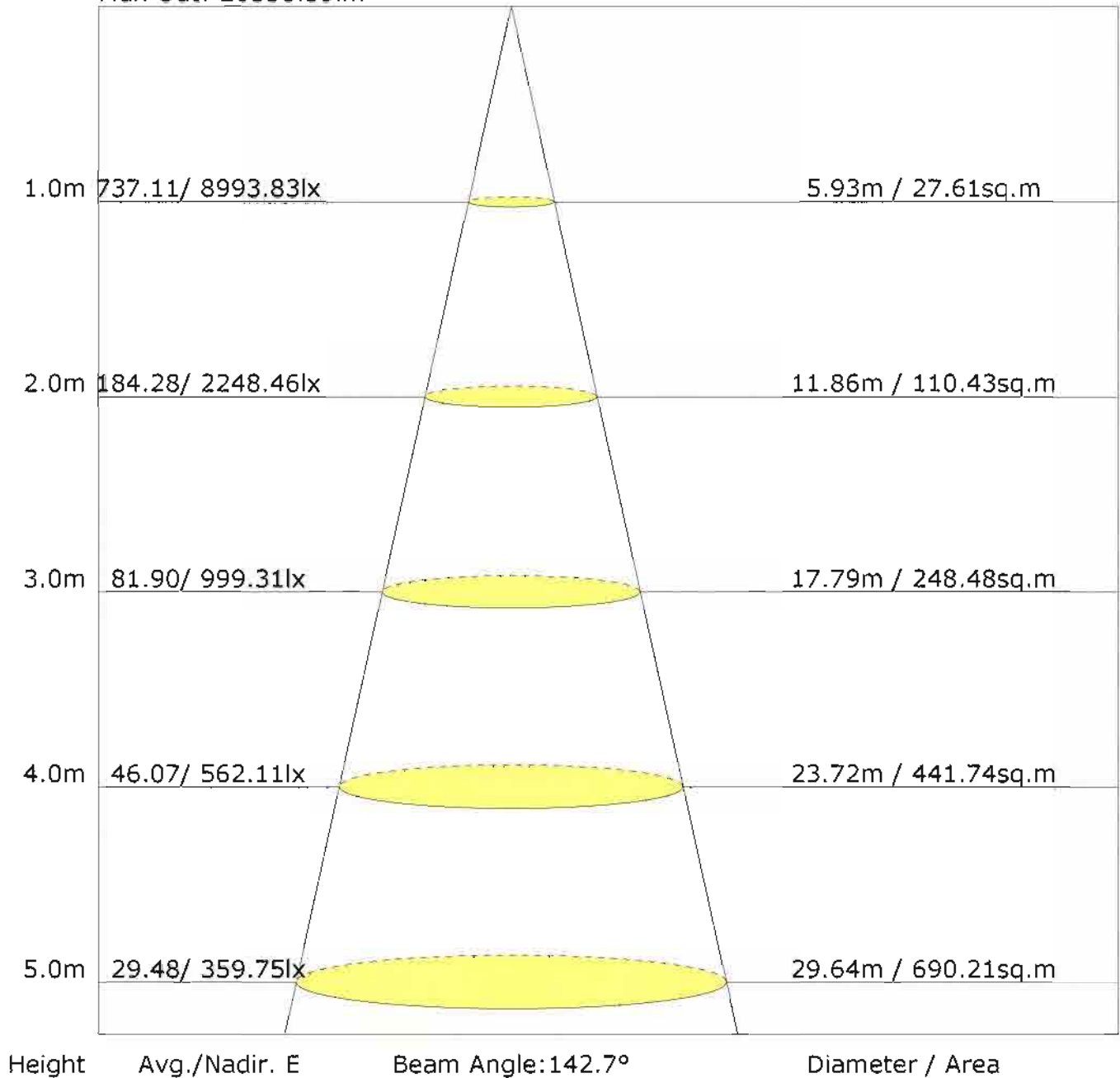
Unit: lm

Horizontal plane

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1800B
Distance: 6.933 m
Humidity: 50
Inspector:

The Average Illuminance Effective Figure

Flux Out: 20350.59lm



UGR Table

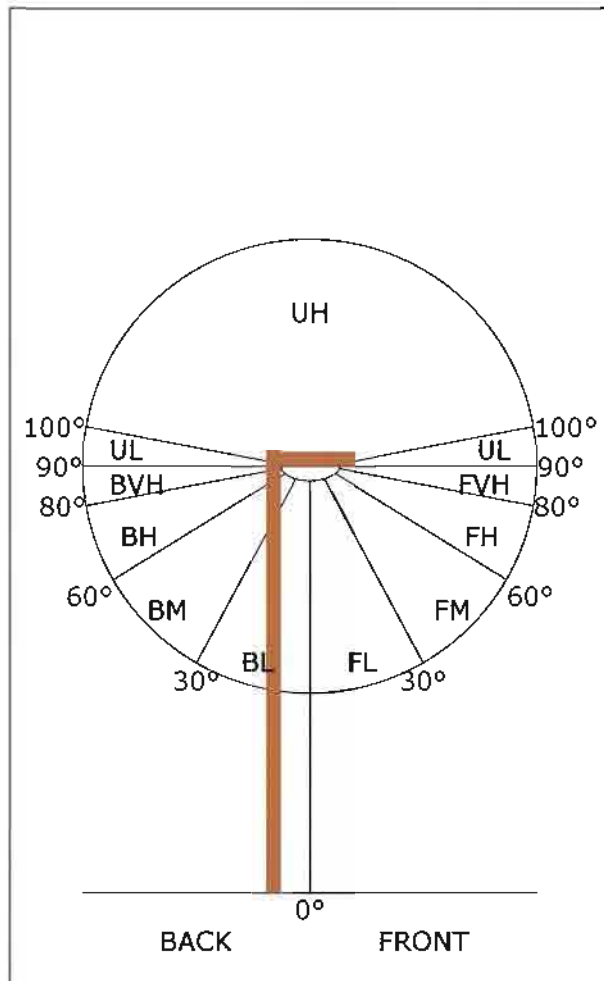
Reflectance:										
Ceiling (cavity)	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
X=2H Y=2H	22.1	23.6	22.5	23.9	24.3	22.0	23.5	22.4	23.8	24.1
3H	22.9	24.2	23.3	24.6	24.9	22.1	23.4	22.5	23.8	24.1
4H	23.0	24.2	23.4	24.6	24.9	22.0	23.3	22.4	23.6	24.0
6H	22.9	24.1	23.3	24.4	24.8	22.0	23.1	22.4	23.5	23.9
8H	22.9	24.0	23.3	24.4	24.8	21.9	23.0	22.4	23.4	23.8
12H	22.8	23.9	23.3	24.3	24.7	21.9	22.9	22.3	23.3	23.8
X=4H Y=2H	22.5	23.7	22.9	24.1	24.5	22.4	23.6	22.8	24.0	24.4
3H	23.4	24.4	23.8	24.8	25.2	22.5	23.5	22.9	23.9	24.3
4H	23.4	24.3	23.9	24.8	25.2	22.4	23.4	22.9	23.8	24.2
6H	23.4	24.2	23.9	24.6	25.1	22.4	23.2	22.8	23.6	24.1
8H	23.3	24.1	23.8	24.5	25.0	22.3	23.1	22.8	23.5	24.0
12H	23.3	24.0	23.8	24.4	24.9	22.3	23.0	22.8	23.4	23.9
X=8H Y=4H	23.3	24.1	23.8	24.5	25.0	22.4	23.1	22.9	23.6	24.0
6H	23.3	23.9	23.8	24.4	24.9	22.3	22.9	22.8	23.4	23.9
8H	23.2	23.8	23.7	24.3	24.8	22.3	22.8	22.8	23.3	23.8
12H	23.2	23.7	23.7	24.2	24.7	22.2	22.7	22.7	23.2	23.8
X=12H Y=4H	23.3	24.0	23.8	24.4	24.9	22.4	23.0	22.8	23.5	24.0
6H	23.2	23.8	23.8	24.2	24.8	22.3	22.8	22.8	23.3	23.8
8H	23.2	23.7	23.7	24.2	24.7	22.2	22.7	22.7	23.2	23.8

Calculate in accordance with CIE 190:2010

C Plane (°):0.0-90.0: 10.0
 Test Lab: EF0006-16062016
 Test Type: TYPE C
 Temperature: 30
 Operator: Jacob Vitoria

Gamma Plane (°):0.0-90.0:1.0
 Test Device: LSG-1800B
 Distance: 6.933 m
 Humidity: 50
 Inspector:

FLUX DISTRIBUTION TABLE BASED ON THE IESNA LUMINAIRE CLASSIFICATION SYSTEM



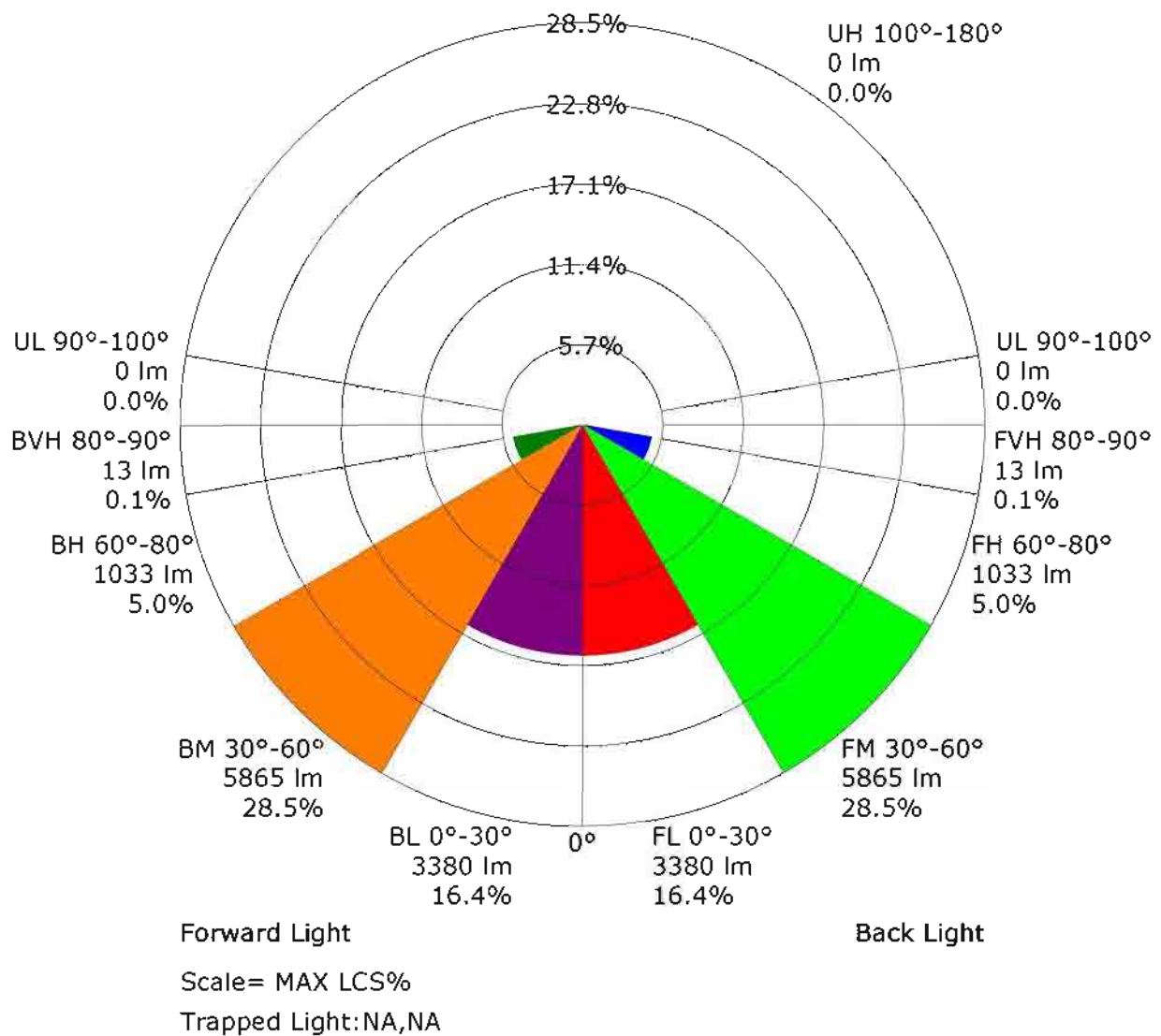
ZONE	LUMENS	% LAMP LUMENS
FORWARD LIGHT	10291	50.0
FL (0°-30°)	3380	16.4
FM (30°-60°)	5865	28.5
FH (60°-80°)	1033	5.0
FVH (80°-90°)	13	0.1
BACK LIGHT	10291	50.0
BL (0°-30°)	3380	16.4
BM (30°-60°)	5865	28.5
BH (60°-80°)	1033	5.0
BVH (80°-90°)	13	0.1
UP LIGHT	0	0.0
UL (90°-100°)	0	0.0
UH (100°-180°)	0	0.0
TRAPPED LIGHT	NA	NA

BUG(Backlight,Uplight,Glare) Rating Base On TM-15-07	
Asymmetrical Luminaire Types (Type I,II,III,IV)	B4 U1 G3
Quadrilateral Symmetrical Luminaire Types (Type V,Area Light)	B4 U1 G1

C Plane (°):0.0-90.0: 10.0
 Test Lab: EF0006-16062016
 Test Type: TYPE C
 Temperature: 30
 Operator: Jacob Vitoria

Gamma Plane (°):0.0-90.0:1.0
 Test Device: LSG-1800B
 Distance: 6.933 m
 Humidity: 50
 Inspector:

LCS Graph



Utilisation Factor Table(Floor cavity)

Utilisation Factors UF(F)			SHR NOM = 1.25								
Room Reflectance			Room Index(RI)								
Ceiling	Wall	Floor	0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00
0.70	0.50	0.20	0.63	0.73	0.81	0.86	0.93	0.97	1.00	1.04	1.06
	0.30		0.55	0.67	0.74	0.80	0.88	0.93	0.96	1.01	1.04
	0.20		0.50	0.61	0.69	0.75	0.83	0.89	0.93	0.98	1.01
0.50	0.50	0.20	0.61	0.71	0.78	0.83	0.90	0.94	0.97	1.00	1.02
	0.30		0.55	0.65	0.73	0.78	0.85	0.90	0.93	0.97	1.00
	0.20		0.50	0.61	0.69	0.74	0.82	0.87	0.90	0.95	0.98
0.30	0.50	0.20	0.60	0.70	0.76	0.81	0.87	0.91	0.93	0.97	0.99
	0.30		0.54	0.64	0.72	0.77	0.83	0.88	0.90	0.94	0.97
	0.20		0.50	0.60	0.68	0.73	0.80	0.85	0.88	0.92	0.95
0.00	0.00	0.00	0.47	0.58	0.65	0.70	0.77	0.81	0.84	0.88	0.90
Rating:192W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980											

Utilisation Factor Table(Wall)

Utilisation Factors UF(W)			SHR NOM = 1.25								
Room Reflectance			Room Index(RI)								
Ceiling	Wall	Floor	0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00
0.70	0.50	0.20	0.91	0.73	0.61	0.52	0.40	0.33	0.28	0.21	0.17
	0.30		0.76	0.62	0.53	0.46	0.37	0.30	0.26	0.20	0.17
	0.20		0.65	0.54	0.47	0.41	0.33	0.28	0.24	0.19	0.16
0.50	0.50	0.20	0.88	0.70	0.58	0.50	0.38	0.35	0.27	0.20	0.16
	0.30		0.74	0.61	0.51	0.44	0.35	0.29	0.25	0.19	0.16
	0.20		0.64	0.54	0.46	0.40	0.32	0.27	0.23	0.18	0.15
0.30	0.50	0.20	0.85	0.67	0.55	0.47	0.37	0.30	0.25	0.19	0.15
	0.30		0.73	0.59	0.50	0.43	0.34	0.28	0.24	0.18	0.15
	0.20		0.64	0.53	0.45	0.39	0.31	0.26	0.22	0.17	0.14
0.00	0.00	0.00	0.53	0.42	0.35	0.30	0.23	0.19	0.16	0.12	0.10
<p>Rating:192W Photometrically tested without ceiling board.</p> <p>Multiply UF values by service correction factors</p> <p>Calculate in accordance with CIBSE Technical Memorandum NO.5 1980</p>											

Utilisation Factor Table(Ceiling cavity)

Utilisation Factors UF(C)			SHR NOM = 1.25								
Room Reflectance			Room Index(RI)								
Ceiling	Wall	Floor	0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00
0.70	0.50	0.20	0.16	0.17	0.18	0.18	0.19	0.20	0.20	0.21	0.21
	0.30		0.09	0.11	0.12	0.13	0.15	0.16	0.17	0.18	0.19
	0.20		0.05	0.07	0.08	0.10	0.12	0.13	0.15	0.16	0.17
0.50	0.50	0.20	0.15	0.16	0.17	0.18	0.18	0.19	0.19	0.20	0.20
	0.30		0.09	0.11	0.12	0.13	0.15	0.16	0.17	0.18	0.19
	0.20		0.05	0.07	0.08	0.10	0.12	0.13	0.14	0.16	0.17
0.30	0.50	0.20	0.15	0.16	0.16	0.17	0.18	0.18	0.19	0.19	0.20
	0.30		0.09	0.11	0.12	0.13	0.14	0.15	0.16	0.17	0.18
	0.20		0.05	0.07	0.08	0.09	0.11	0.13	0.14	0.15	0.16
0.00	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA
<p>Rating:192W Photometrically tested without ceiling board.</p> <p>Multiply UF values by service correction factors</p> <p>Calculate in accordance with CIBSE Technical Memorandum NO.5 1980</p>											

Zonal Lumen

Gamma [°]	I _{mean} [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
0.0-1.0	8978.4	8.6	8.6	0.04	0.04
1.0-2.0	8973.5	25.8	34.4	0.13	0.17
2.0-3.0	8963.2	42.9	77.2	0.21	0.38
3.0-4.0	8946.6	59.9	137.1	0.29	0.67
4.0-5.0	8925.2	76.8	213.9	0.37	1.04
5.0-6.0	8906.0	93.6	307.5	0.45	1.49
6.0-7.0	8885.5	110.3	417.8	0.54	2.03
7.0-8.0	8859.8	126.8	544.6	0.62	2.65
8.0-9.0	8830.7	143.1	687.8	0.70	3.34
9.0-10.0	8798.8	159.3	847.0	0.77	4.12
10.0-11.0	8762.8	175.1	1022.1	0.85	4.97
11.0-12.0	8717.8	190.6	1212.7	0.93	5.89
12.0-13.0	8662.8	205.6	1418.3	1.00	6.89
13.0-14.0	8600.4	220.2	1638.5	1.07	7.96
14.0-15.0	8534.1	234.3	1872.8	1.14	9.10
15.0-16.0	8465.2	248.1	2120.9	1.21	10.30
16.0-17.0	8390.5	261.3	2382.2	1.27	11.57
17.0-18.0	8312.6	274.1	2656.4	1.33	12.91
18.0-19.0	8234.1	286.5	2942.9	1.39	14.30
19.0-20.0	8152.8	298.4	3241.3	1.45	15.75
20.0-21.0	8066.6	309.8	3551.1	1.51	17.25
21.0-22.0	7974.2	320.5	3871.6	1.56	18.81
22.0-23.0	7876.8	330.6	4202.1	1.61	20.42
23.0-24.0	7777.3	340.1	4542.2	1.65	22.07
24.0-25.0	7679.9	349.2	4891.5	1.70	23.77
25.0-26.0	7583.6	358.0	5249.5	1.74	25.51
26.0-27.0	7487.2	366.4	5615.8	1.78	27.29
27.0-28.0	7390.1	374.2	5990.0	1.82	29.10
28.0-29.0	7290.7	381.5	6371.5	1.85	30.96
29.0-30.0	7190.8	388.3	6759.8	1.89	32.84
30.0-31.0	7087.0	394.4	7154.3	1.92	34.76
31.0-32.0	6981.3	400.0	7554.3	1.94	36.70
32.0-33.0	6875.9	405.1	7959.4	1.97	38.67
33.0-34.0	6767.9	409.6	8369.1	1.99	40.66
34.0-35.0	6657.9	413.5	8782.6	2.01	42.67
35.0-36.0	6545.3	416.8	9199.4	2.03	44.70

C Plane (°):0.0-90.0: 10.0
 Test Lab: EF0006-16062016
 Test Type: TYPE C
 Temperature: 30
 Operator: Jacob Vitoria

Gamma Plane (°):0.0-90.0:1.0
 Test Device: LSG-1800B
 Distance: 6.933 m
 Humidity: 50
 Inspector:

Zonal Lumen (Continue 1)

Gamma [°]	I _{mean} [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
36.0-37.0	6431.6	419.5	9618.9	2.04	46.74
37.0-38.0	6315.7	421.6	10040.5	2.05	48.78
38.0-39.0	6198.4	423.1	10463.7	2.06	50.84
39.0-40.0	6079.2	424.0	10887.7	2.06	52.90
40.0-41.0	5957.7	424.3	11312.0	2.06	54.96
41.0-42.0	5842.1	424.5	11736.5	2.06	57.02
42.0-43.0	5722.2	423.9	12160.5	2.06	59.08
43.0-44.0	5600.4	422.7	12583.2	2.05	61.14
44.0-45.0	5480.6	421.3	13004.5	2.05	63.18
45.0-46.0	5353.1	418.7	13423.2	2.03	65.22
46.0-47.0	5220.2	415.2	13838.4	2.02	67.24
47.0-48.0	5081.0	410.8	14249.2	2.00	69.23
48.0-49.0	4940.6	405.8	14655.0	1.97	71.20
49.0-50.0	4793.2	399.7	15054.7	1.94	73.15
50.0-51.0	4640.9	392.7	15447.4	1.91	75.05
51.0-52.0	4484.2	384.8	15832.2	1.87	76.92
52.0-53.0	4326.6	376.4	16208.6	1.83	78.75
53.0-54.0	4165.5	367.2	16575.8	1.78	80.54
54.0-55.0	3981.6	355.5	16931.3	1.73	82.26
55.0-56.0	3781.1	341.7	17273.0	1.66	83.92
56.0-57.0	3582.1	327.6	17600.6	1.59	85.52
57.0-58.0	3389.3	313.5	17914.0	1.52	87.04
58.0-59.0	3176.1	297.0	18211.0	1.44	88.48
59.0-60.0	2961.5	279.8	18490.8	1.36	89.84
60.0-61.0	2747.9	262.3	18753.1	1.27	91.11
61.0-62.0	2525.7	243.4	18996.5	1.18	92.30
62.0-63.0	2320.3	225.7	19222.2	1.10	93.39
63.0-64.0	2103.1	206.4	19428.6	1.00	94.40
64.0-65.0	1885.0	186.6	19615.2	0.91	95.30
65.0-66.0	1673.3	167.0	19782.2	0.81	96.11
66.0-67.0	1464.3	147.3	19929.4	0.72	96.83
67.0-68.0	1263.1	128.0	20057.4	0.62	97.45
68.0-69.0	1061.6	108.3	20165.7	0.53	97.98
69.0-70.0	876.2	90.0	20255.7	0.44	98.42
70.0-71.0	703.8	72.7	20328.4	0.35	98.77
71.0-72.0	557.0	57.9	20386.4	0.28	99.05

C Plane (°):0.0-90.0: 10.0
 Test Lab: EF0006-16062016
 Test Type: TYPE C
 Temperature: 30
 Operator: Jacob Vitoria

Gamma Plane (°):0.0-90.0:1.0
 Test Device: LSG-1800B
 Distance: 6.933 m
 Humidity: 50
 Inspector:

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1800B
Distance: 6.933 m
Humidity: 50
Inspector:

Candlepower Table

Unit: cd

G\C	C0.0	C10.0	C20.0	C30.0	C40.0	C50.0	C60.0	C70.0	C80.0	C90.0
G0.0	8993.8	8991.8	8990.2	8987.2	8985.5	8980.2	8978.2	8966.6	8961.3	8938.7
G1.0	8986.5	8981.5	8985.2	8982.2	8985.9	8980.9	8983.2	8974.2	8967.3	8941.0
G2.0	8978.9	8978.9	8977.6	8975.2	8972.6	8966.6	8968.9	8961.3	8961.3	8933.4
G3.0	8987.5	8983.9	8983.2	8978.9	8971.9	8952.3	8944.0	8926.8	8932.7	8902.2
G4.0	8975.6	8973.9	8970.9	8961.0	8957.6	8934.4	8915.5	8889.9	8896.9	8865.7
G5.0	8973.6	8968.6	8968.9	8949.3	8927.4	8896.5	8889.9	8860.0	8866.0	8839.8
G6.0	8976.2	8969.9	8961.0	8923.4	8902.5	8867.3	8863.7	8843.4	8843.1	8824.2
G7.0	8951.3	8946.3	8942.7	8902.5	8873.3	8844.1	8841.1	8822.8	8817.8	8796.3
G8.0	8923.4	8914.5	8910.5	8867.3	8852.4	8821.5	8815.2	8793.6	8789.0	8771.0
G9.0	8895.5	8882.9	8870.3	8820.2	8821.5	8797.9	8787.6	8770.0	8767.4	8750.5
G10.0	8864.7	8845.4	8824.5	8772.4	8785.7	8762.1	8759.4	8744.1	8747.8	8728.9
G11.0	8809.5	8792.3	8774.7	8735.5	8735.2	8727.9	8734.5	8719.9	8718.9	8696.7
G12.0	8738.5	8712.3	8710.9	8685.7	8690.7	8682.0	8705.6	8673.8	8675.7	8643.5
G13.0	8666.4	8637.6	8632.6	8612.3	8648.5	8637.6	8663.1	8620.0	8623.3	8588.8
G14.0	8594.1	8563.2	8547.9	8530.0	8594.7	8584.8	8606.7	8556.2	8563.5	8521.3
G15.0	8540.6	8507.4	8477.2	8456.6	8531.0	8521.0	8536.0	8487.2	8498.4	8449.0
G16.0	8475.9	8442.0	8425.1	8392.2	8462.9	8451.3	8459.9	8400.8	8409.8	8365.0
G17.0	8409.1	8360.3	8365.6	8332.8	8380.2	8362.3	8368.9	8314.2	8330.4	8289.9
G18.0	8342.7	8294.6	8283.6	8274.3	8301.9	8264.3	8279.0	8230.2	8253.4	8219.9
G19.0	8283.9	8222.2	8218.5	8195.6	8221.2	8153.8	8185.3	8150.5	8189.0	8145.1
G20.0	8197.9	8133.5	8150.5	8125.6	8139.8	8043.5	8094.7	8066.8	8113.3	8066.8
G21.0	8115.6	8051.9	8066.5	8045.2	8036.9	7943.3	8004.0	7973.2	8023.3	7993.4
G22.0	8024.0	7949.6	7969.5	7951.9	7933.6	7841.0	7898.1	7877.9	7945.6	7917.0
G23.0	7909.4	7848.0	7875.9	7859.6	7826.4	7736.8	7788.2	7781.6	7859.3	7829.0
G24.0	7820.4	7751.0	7782.2	7743.7	7718.5	7632.8	7685.0	7685.3	7764.6	7747.4
G25.0	7746.0	7677.0	7695.6	7644.8	7602.3	7522.6	7577.4	7590.3	7675.3	7666.0
G26.0	7671.0	7600.3	7620.5	7537.9	7481.1	7402.7	7464.5	7492.0	7592.6	7571.4
G27.0	7587.3	7515.9	7550.8	7441.2	7375.2	7288.8	7356.9	7394.8	7503.3	7474.1
G28.0	7501.0	7426.0	7467.5	7338.0	7266.9	7179.9	7245.3	7296.5	7402.4	7381.1
G29.0	7405.0	7332.7	7384.1	7235.4	7174.0	7060.7	7146.7	7189.5	7303.1	7280.9
G30.0	7309.8	7240.7	7292.5	7132.1	7073.3	6956.1	7032.8	7081.0	7209.8	7182.3
G31.0	7210.5	7136.8	7194.2	7031.2	6972.7	6855.9	6914.6	6959.8	7095.9	7071.7
G32.0	7107.5	7033.5	7088.3	6926.9	6874.1	6763.2	6794.4	6847.9	6995.6	6968.4
G33.0	6996.6	6935.2	6979.7	6816.7	6772.2	6667.6	6677.9	6739.6	6886.1	6862.2
G34.0	6889.1	6828.3	6877.4	6711.8	6661.6	6566.7	6562.7	6623.1	6766.9	6750.6
G35.0	6778.8	6722.0	6758.9	6607.2	6564.0	6460.4	6464.1	6495.3	6645.4	6633.4
G36.0	6667.9	6597.5	6638.0	6489.6	6454.1	6355.1	6356.5	6372.1	6535.1	6518.8

C Plane (°):0.0-90.0: 10.0
 Test Lab: EF0006-16062016
 Test Type: TYPE C
 Temperature: 30
 Operator: Jacob Vitoria

Gamma Plane (°):0.0-90.0:1.0
 Test Device: LSG-1800B
 Distance: 6.933 m
 Humidity: 50
 Inspector:

Candlepower Table (Continue 1)

Unit: cd

G\C	C0.0	C10.0	C20.0	C30.0	C40.0	C50.0	C60.0	C70.0	C80.0	C90.0
G37.0	6550.0	6484.6	6515.9	6372.4	6351.8	6252.2	6250.2	6251.9	6417.6	6410.9
G38.0	6422.5	6368.4	6391.3	6243.9	6238.3	6141.0	6139.3	6126.7	6292.4	6304.7
G39.0	6300.0	6246.6	6271.1	6121.1	6116.8	6035.1	6030.1	6021.8	6182.2	6184.5
G40.0	6175.9	6117.1	6132.0	6000.9	5996.9	5929.1	5917.9	5896.3	6050.3	6059.3
G41.0	6058.3	6009.5	5991.2	5856.1	5884.7	5812.9	5815.6	5775.1	5925.5	5961.7
G42.0	5943.8	5905.6	5863.7	5731.6	5759.5	5699.4	5709.3	5666.2	5833.5	5874.0
G43.0	5767.1	5716.6	5753.5	5601.8	5629.0	5566.9	5588.8	5566.2	5731.6	5769.1
G44.0	5636.3	5596.8	5615.0	5479.6	5508.8	5450.4	5475.6	5480.9	5632.6	5653.2
G45.0	5482.9	5463.6	5437.4	5366.4	5381.3	5337.5	5368.7	5388.9	5516.4	5529.0
G46.0	5315.2	5295.6	5326.5	5209.6	5254.8	5209.6	5279.7	5278.7	5382.0	5392.6
G47.0	5198.0	5184.7	5158.8	5034.6	5102.7	5071.8	5178.8	5163.8	5250.1	5257.4
G48.0	5006.8	4978.5	4993.1	4918.1	4972.6	4948.3	5079.1	5031.0	5116.3	5088.8
G49.0	4868.6	4844.7	4848.0	4743.8	4850.7	4833.4	4963.3	4898.5	4965.6	4927.7
G50.0	4657.1	4652.5	4666.1	4586.4	4709.9	4713.9	4828.5	4758.1	4800.2	4774.3
G51.0	4512.7	4501.4	4533.3	4430.3	4533.6	4590.4	4699.3	4604.3	4650.8	4612.0
G52.0	4308.5	4283.9	4327.1	4262.7	4390.2	4460.9	4556.2	4444.6	4500.4	4459.2
G53.0	4147.5	4138.1	4173.7	4116.6	4205.2	4328.7	4411.1	4295.2	4368.9	4314.5
G54.0	3937.3	3931.0	3975.1	3920.0	4068.4	4200.6	4252.7	4160.7	4219.2	4029.9
G55.0	3777.9	3773.3	3823.1	3762.6	3903.7	3990.7	4085.0	4029.2	3863.6	3676.3
G56.0	3592.6	3582.7	3643.1	3584.0	3762.3	3828.7	3937.9	3612.9	3591.3	3523.9
G57.0	3380.8	3364.8	3435.2	3396.1	3603.9	3654.4	3788.2	3398.7	3461.8	3165.0
G58.0	3216.4	3192.2	3284.5	3259.9	3447.9	3460.1	3616.9	3268.9	3028.2	2930.2
G59.0	3044.1	3019.9	3092.2	3054.4	3253.6	3303.1	3173.9	2853.5	2866.1	2796.7
G60.0	2853.8	2809.0	2883.4	2882.4	3105.2	3101.5	3028.8	2691.1	2651.3	2378.7
G61.0	2665.6	2621.1	2706.4	2740.9	2906.0	2828.3	2734.6	2365.1	2325.6	2266.5
G62.0	2476.0	2443.1	2547.4	2556.7	2734.0	2531.8	2453.4	2173.2	2146.6	1890.6
G63.0	2298.4	2264.1	2375.7	2378.0	2560.3	2357.8	2292.0	1900.9	1826.2	1784.7
G64.0	2124.0	2077.9	2198.7	2209.7	2361.1	1995.5	1917.2	1695.7	1623.0	1438.0
G65.0	1956.0	1904.9	2005.8	2041.3	2180.8	1837.5	1755.8	1377.6	1394.6	1186.7
G66.0	1774.1	1740.9	1824.5	1873.3	1845.1	1525.4	1457.3	1267.7	1102.4	1053.6
G67.0	1613.0	1567.2	1651.5	1692.4	1671.8	1389.9	1191.3	985.5	963.2	777.0
G68.0	1431.1	1388.6	1484.2	1519.7	1396.9	1116.0	1056.2	734.5	744.4	542.9
G69.0	1268.0	1217.9	1315.5	1345.1	1255.4	903.8	806.2	531.3	504.0	335.0
G70.0	1105.7	1063.8	1159.1	1183.7	1014.4	770.0	592.0	372.2	300.5	163.4
G71.0	952.9	912.4	1004.7	940.3	841.7	580.1	403.1	225.4	131.8	122.8
G72.0	803.9	761.7	855.7	781.9	686.0	410.4	263.6	116.2	116.2	109.6
G73.0	676.0	620.6	711.5	615.9	509.0	273.6	119.9	103.6	104.9	97.9

C Plane (°):0.0-90.0: 10.0
 Test Lab: EF0006-16062016
 Test Type: TYPE C
 Temperature: 30
 Operator: Jacob Vitoria

Gamma Plane (°):0.0-90.0:1.0
 Test Device: LSG-1800B
 Distance: 6.933 m
 Humidity: 50
 Inspector:

Candlepower Table (Continue 2)

Unit: cd

[illegible]

C Plane (°):0.0-90.0: 10.0
Test Lab: EF0006-16062016
Test Type: TYPE C
Temperature: 30
Operator: Jacob Vitoria

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1800B
Distance: 6.933 m
Humidity: 50
Inspector:

PROIETTORI LED per ESTERNI

Proiettore LED SMD 80W 120 lm/W



SCHEDA TECNICA

Potenza	80 W
Alimentazione	220-240V AC
Multitensione	85-265V AC
Frequenza	50-60 Hz
Intensità	0.367 A
Flusso Luminoso	9600 lm
Rendimento LED	120 lm/W
Fascio Luminoso	120°
CRI	85
Fattore di Potenza	0.96
Protezione IP	IP66
Protezione IK	IK08
Tipo di LED	Epistar-SMD2835
Numero di LED	216 un.
Durata	30.000 ore
T° Amb Funzionamento	-20°C~+45°C
Dimensioni	225x235x145 mm
Materiale del Corpo	Alluminio
Diffusore	Trasparente
Certificati	CE & RoHS

DESCRIZIONE DEL PRODOTTO

Proiettore LED Epistar orientabile con il cornice magro ha una potenza di 80W, una alimentazione di AC 85-265V, un'efficienza di 120lm/W, una lente LED SMD e una luminosità di 9600 lm..

Il suo grado di protezione IP66 lo rende ideale per uso esterno.

Il suo indice di resa cromatica (CRI) è Ra>85, e ha una durata stimata di più di 30.000 ore.

È realizzato in alluminio e vetro. Con accensione immediata e senza sfarfallio restaura subito i condizioni di illuminazione prima di un'interruzione di corrente.

Alte prestazioni e massima efficienza energetica con luce luminosa e splendente.

Finitura d'alluminio ad iniezione. Ha un radiatore che garantisce un'ottima dissipazione del calore.

ILLUMINAZIONE STRADALE LED

Apparecchio LED Stradale Brooklyn 60W



SCHEDA TECNICA

Potenza	60W
Alimentazione	220-240V AC
Frequenza	50-60 Hz
Flusso Luminoso	5700 lm
Fascio Luminoso	120°
Fattore di Potenza	0.98
Protezione IP	IP65
Protezione IK	IK08
Tipo di LED	Epistar
Numero di LED	60
Durata	50.000 ore
T ^a Amb. Funzionament	-40°C ~ +40°C
Dimensioni	610x280x70mm
Materiale del Corpo	Alluminio
Diffusore	Trasparente
Certificati	CE & RoHS

DESCRIZIONE DEL PRODOTTO

Apparecchio a LED Brooklyn per Illuminazione pubblica e stradale, offre un'accensione immediata e una grande potenza, essendo il sostituto ideale per i vecchi lampioni a scarica, migliorando la qualità della luce e riducendo in maniera significativa il consumo di energia. Realizzato in alluminio iniettato e con trattamento meccanico e chimico anti-corrosione, resistente ai raggi UV.

Ha una lente multiLED protetta con vetro temperato ed ha un fattore di protezione IP65.