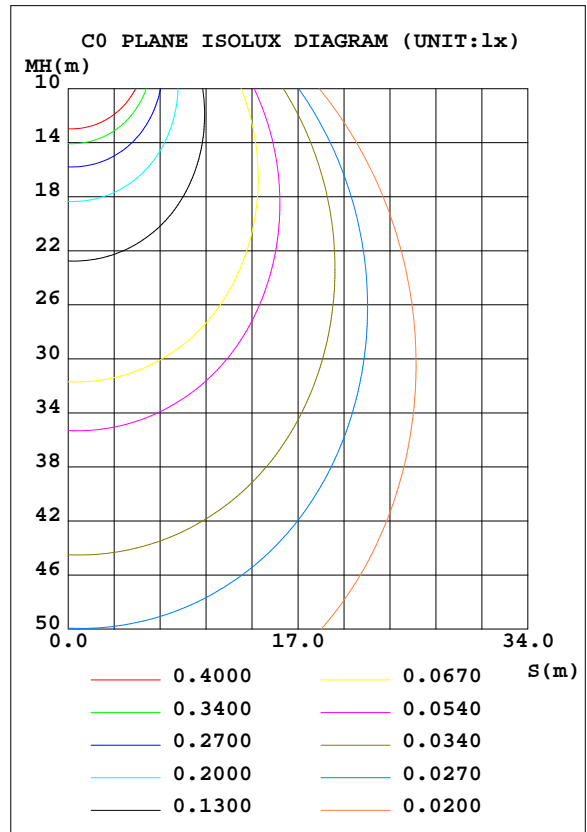
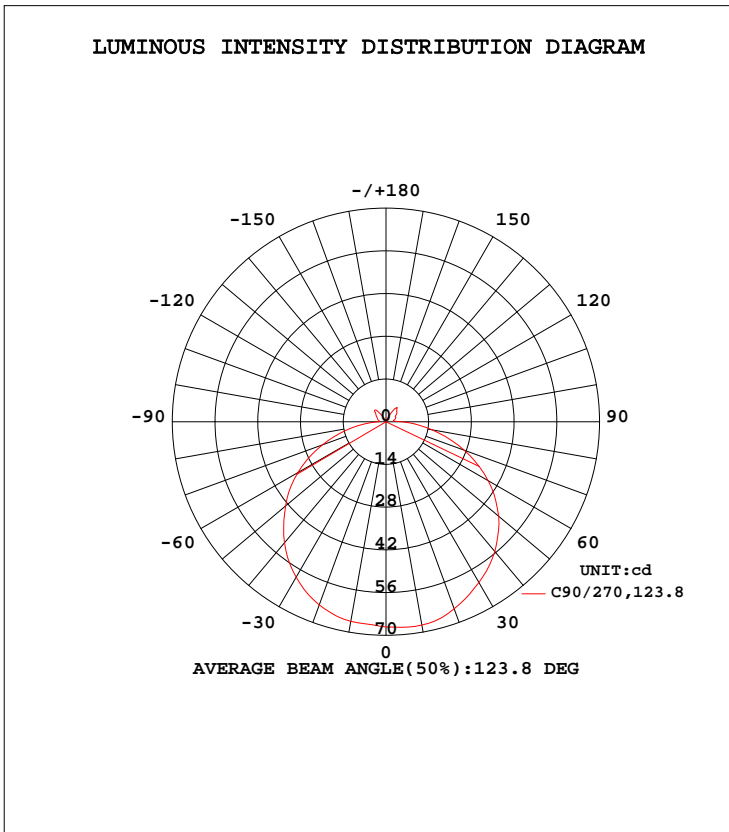


LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: C-FR-F16B-VB-36CV-65K-TT-12-80-2.45W-250	TYPE:	WEIGHT: 0.129kg/m
SPEC.:	DIM.: 6*15.5mm	SERIAL No.:
MFR.: CLEAR	SUR.: 15.5*1000mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 91.10 lm/W
MODEL	5050	Imax(cd)	67.87	S/MH(C0/180)	1.06	
NOMINAL POWER(W)	2.45	LOR(%)	95.7	S/MH(C90/270)	1.30	
RATED VOLTAGE(V)	36	TOTAL FLUX(lm)	206.62	η UP, DN(C0-180)	2.6, 48.0	
NOMINAL FLUX(lm)	215.83	CIE CLASS	DIRECT	η UP, DN(C180-360)	2.0, 43.2	
LAMPS INSIDE	1	η up(%)	4.5	CIBSE SHR NOM	1.25	
TEST VOLTAGE(V)	36	η down(%)	91.2	CIBSE SHR MAX	1.35	



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Dillon
 Test Date:14 May 2021

γ Range: 0 - 180DEG
 γ Interval: 2.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.446
 Humidity:65.0%
 Test Distance:6.950m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	66.33	67.45	67.67	66.04	64.03	64.93	66.44	66.29	0- 10	6.364	6.364	3.08,2.95
20	61.22	64.96	65.25	62.64	56.76	61.33	63.90	63.56	10- 20	18.28	24.64	11.9,11.4
30	52.46	59.87	60.88	56.91	46.64	55.71	58.85	58.50	20- 30	27.63	52.27	25.3,24.2
40	41.82	53.44	55.48	50.26	35.20	48.02	51.78	51.50	30- 40	33.26	85.53	41.4,39.6
50	30.81	45.64	48.19	42.09	23.56	38.39	42.94	42.52	40- 50	34.62	120.1	58.2,55.7
60	20.42	36.11	38.67	31.95	12.98	27.96	33.33	32.23	50- 60	31.56	151.7	73.4,70.3
70	11.30	24.49	27.30	20.40	5.285	16.76	22.26	20.74	60- 70	24.45	176.2	85.3,81.6
80	3.798	12.88	15.37	9.791	1.436	7.078	11.14	9.750	70- 80	14.87	191.0	92.5,88.5
90	0.0007	3.792	5.276	2.631	0	1.683	2.727	2.229	80- 90	5.810	196.8	95.3,91.2
100	0	1.622	2.506	1.532	0	1.433	2.438	1.555	90-100	1.819	198.7	96.2,92
110	0	2.004	3.330	1.885	0	1.647	2.978	1.872	100-110	1.690	200.4	97,92.8
120	0	2.163	3.559	1.802	0	1.515	3.675	2.041	110-120	1.808	202.2	97.8,93.7
130	0	2.301	4.703	2.100	0	1.327	4.497	1.809	120-130	1.726	203.9	98.7,94.5
140	0	2.345	5.611	2.308	0	0.4539	4.929	1.560	130-140	1.607	205.5	99.5,95.2
150	0	1.070	3.307	1.032	0.0080	0.0081	1.616	0.3171	140-150	0.9245	206.4	99.9,95.6
160	0.0001	0.1630	0.5577	0.1870	0.0054	0.0109	0.0027	0.0254	150-160	0.1812	206.6	100,95.7
170	0.0161	0.0215	0.0429	0.0457	0.0429	0.0281	0.0080	0.0188	160-170	0.0160	206.6	100,95.7
180	0.0430	0.0215	0.0188	0.0201	0.0537	0.0269	0.0188	0.0255	170-180	0.0023	206.6	100,95.7
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 106.43 lm

%lum = 51.5%
 %lamp = 49.3%

Conical surface Flux(120deg): 151.71 lm

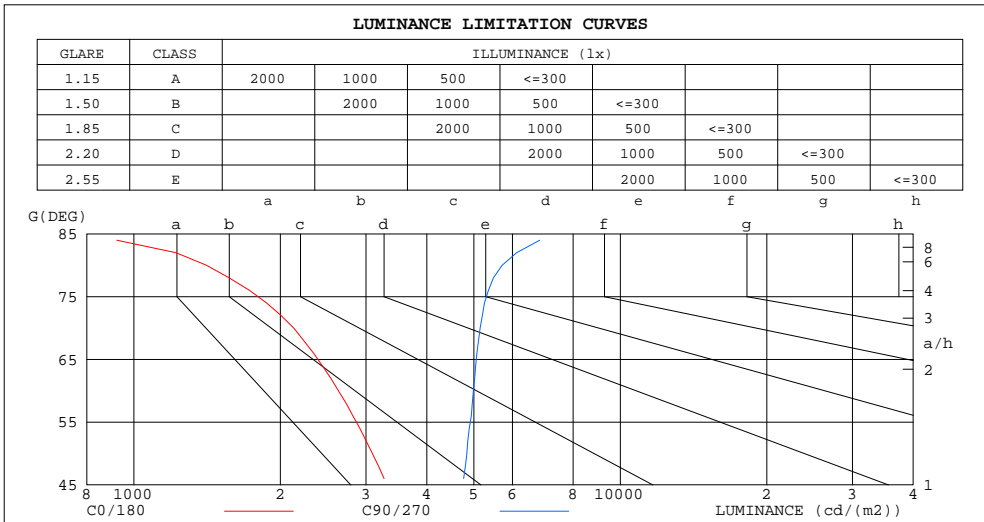
%lum = 73.4%
 %lamp = 70.3%

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Dillon
 Test Date:14 May 2021

γ Range: 0 - 180DEG
 γ Interval: 2.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.446
 Humidity:65.0%
 Test Distance:6.950m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

NAME: C-FR-F16B-VB-36CV-65K-TT-12-80-2.45W-250	TYPE:	WEIGHT: 0.129kg/m
SPEC.:	DIM.: 6*15.5mm	SERIAL No.:
MFR.: CLEAR	SUR.: 15.5*1000mm	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	1106	8188
80	1411	5711
75	1997	5597
70	2132	5149
65	2530	5230
60	2634	4990
55	2987	5013
50	3093	4837
45	3415	4805

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Dillon
 Test Date: 14 May 2021

γ Range: 0 - 180DEG
 γ Interval: 2.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.446
 Humidity: 65.0%
 Test Distance: 6.950m [K=1.0000]
 Remarks:

WEC AND CCEC

NAME: C-FR-F16B-VB-36CV-65K-TT-12-80-2.45W-250	TYPE:	WEIGHT: 0.129kg/m
SPEC.:	DIM.: 6*15.5mm	SERIAL No.:
MFR.: CLEAR	SUR.: 15.5*1000mm	Shielding Angle:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.307	.175	.055	.299	.171	.054	.284	.163	.052	.270	.155	.050	.257	.149	.048	
2.0	.284	.156	.048	.277	.153	.047	.263	.146	.046	.251	.141	.044	.239	.135	.043	
3.0	.261	.139	.042	.255	.136	.041	.243	.131	.040	.231	.127	.039	.221	.122	.038	
4.0	.240	.125	.037	.234	.123	.036	.223	.118	.035	.213	.115	.035	.204	.111	.034	
5.0	.221	.113	.033	.216	.111	.032	.206	.107	.032	.197	.104	.031	.189	.101	.030	
6.0	.205	.103	.029	.200	.101	.029	.192	.098	.029	.183	.095	.028	.176	.092	.027	
7.0	.190	.094	.027	.186	.093	.026	.178	.090	.026	.171	.088	.026	.164	.085	.025	
8.0	.178	.087	.024	.174	.086	.024	.167	.083	.024	.160	.081	.023	.154	.079	.023	
9.0	.166	.080	.022	.163	.079	.022	.156	.077	.022	.150	.075	.022	.145	.073	.021	
10.0	.156	.075	.021	.153	.074	.021	.147	.072	.020	.142	.070	.020	.136	.069	.020	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.217	.217	.217	.185	.185	.185	.126	.126	.126	.073	.073	.073	.023	.023	.023	
1.0	.208	.184	.163	.178	.158	.140	.122	.109	.097	.070	.063	.056	.022	.020	.018	
2.0	.201	.161	.128	.172	.139	.111	.118	.096	.077	.068	.056	.045	.022	.018	.015	
3.0	.193	.145	.106	.166	.125	.092	.114	.087	.064	.066	.051	.038	.021	.016	.012	
4.0	.186	.132	.091	.160	.114	.079	.110	.080	.056	.063	.047	.033	.020	.015	.011	
5.0	.179	.122	.081	.154	.106	.070	.106	.074	.049	.061	.043	.029	.020	.014	.010	
6.0	.172	.114	.073	.148	.099	.064	.102	.069	.045	.059	.041	.027	.019	.013	.009	
7.0	.165	.108	.067	.142	.093	.059	.098	.066	.042	.057	.039	.025	.018	.013	.008	
8.0	.159	.102	.063	.137	.089	.055	.095	.062	.039	.055	.037	.023	.018	.012	.008	
9.0	.153	.098	.060	.132	.085	.052	.092	.060	.037	.053	.035	.022	.017	.012	.007	
10.0	.148	.094	.057	.127	.081	.050	.088	.057	.036	.052	.034	.021	.017	.011	.007	

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Dillon
 Test Date:14 May 2021

γ Range: 0 - 180DEG
 γ Interval: 2.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.446
 Humidity:65.0%
 Test Distance:6.950m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

NAME: C-FR-F16B-VB-36CV-65K-TT-12-80-2.45W-250	TYPE:	WEIGHT: 0.129kg/m
SPEC.:	DIM.: 6*15.5mm	SERIAL No.:
MFR.: CLEAR	SUR.: 15.5*1000mm	Shielding Angle:

ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
x = 2H y = 2H	22.4	23.8	22.7	24.1	24.4	24.2	25.7	24.5	25.9	26.2
3H	23.5	24.9	23.9	25.2	25.5	26.1	27.5	26.5	27.8	28.1
4H	23.9	25.2	24.3	25.5	25.9	27.0	28.3	27.4	28.6	29.0
6H	24.1	25.3	24.5	25.7	26.0	27.8	29.0	28.2	29.3	29.7
8H	24.1	25.3	24.5	25.7	26.1	28.1	29.3	28.5	29.7	30.0
12H	24.1	25.2	24.5	25.6	26.0	28.5	29.6	28.9	30.0	30.4
4H 2H	23.5	24.7	23.8	25.1	25.4	24.8	26.1	25.2	26.4	26.8
3H	24.9	26.0	25.3	26.4	26.8	26.9	28.1	27.4	28.4	28.8
4H	25.5	26.5	25.9	26.9	27.4	28.0	29.0	28.4	29.4	29.8
6H	25.8	26.8	26.3	27.2	27.7	28.9	29.8	29.4	30.3	30.7
8H	25.9	26.8	26.4	27.2	27.7	29.4	30.2	29.8	30.7	31.1
12H	25.9	26.7	26.4	27.2	27.7	29.8	30.6	30.3	31.0	31.5
8H 4H	26.2	27.0	26.6	27.5	27.9	28.2	29.1	28.7	29.5	30.0
6H	26.8	27.5	27.3	28.0	28.5	29.4	30.1	29.9	30.6	31.1
8H	27.0	27.6	27.5	28.1	28.7	30.0	30.6	30.5	31.1	31.7
12H	27.1	27.7	27.7	28.2	28.8	30.6	31.2	31.2	31.7	32.3
12H 4H	26.3	27.1	26.8	27.5	28.0	28.2	29.0	28.7	29.5	30.0
6H	27.0	27.7	27.6	28.2	28.7	29.5	30.1	30.0	30.6	31.2
8H	27.3	27.9	27.9	28.4	29.0	30.1	30.7	30.7	31.2	31.8
Variations with the observer position at spacings(CIE Pub.117):										
S = 1.0H	+ 0.2 / - 0.2					+ 0.1 / - 0.1				
1.5H	+ 0.4 / - 0.5					+ 0.2 / - 0.3				
2.0H	+ 0.4 / - 0.7					+ 0.2 / - 0.4				

CIE Pub.117, 215.8 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -5.3)
 Area: 0.0155 m2

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Dillon
 Test Date:14 May 2021

γ Range: 0 - 180DEG
 γ Interval: 2.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.446
 Humidity:65.0%
 Test Distance:6.950m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

NAME: C-FR-F16B-VB-36CV-65K-TT-12-80-2.45W-250	TYPE:	WEIGHT: 0.129kg/m
SPEC.:	DIM.: 6*15.5mm	SERIAL No.:
MFR.: CLEAR	SUR.: 15.5*1000mm	Shielding Angle:

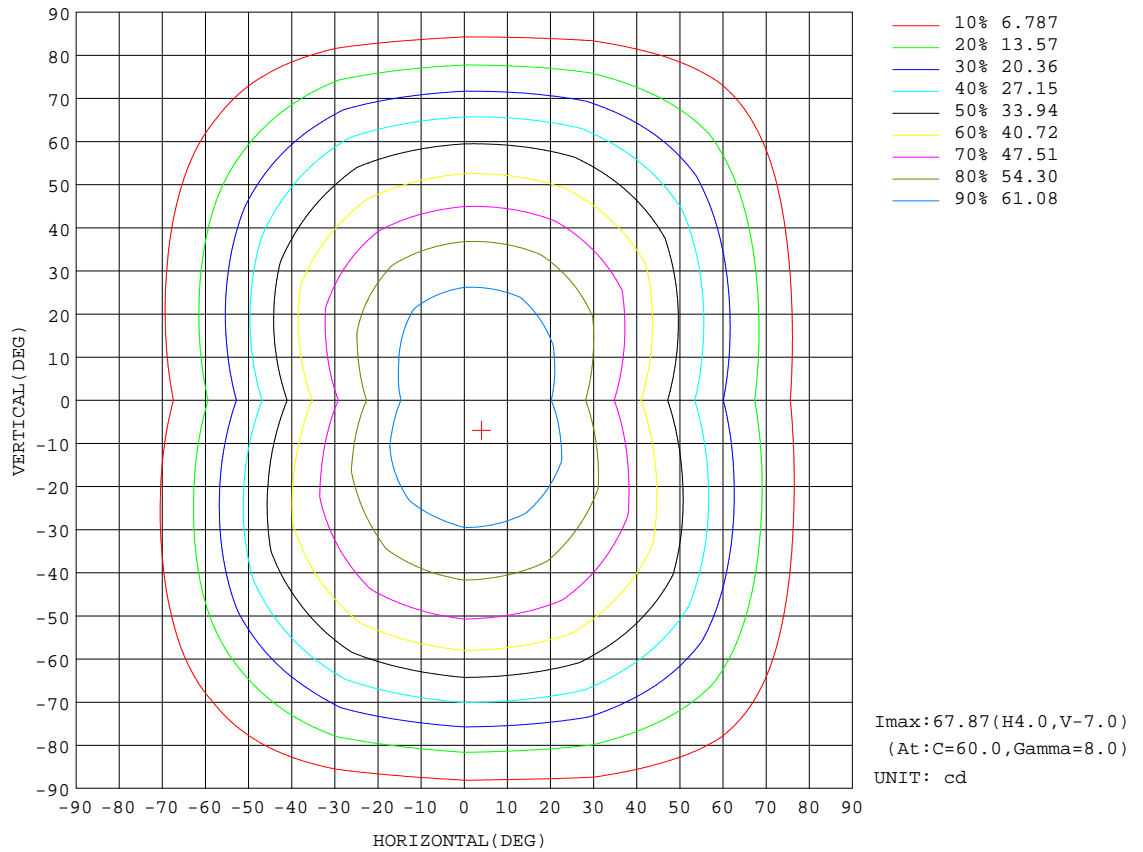
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	53	42	35	52	42	35	51	41	35	29
0.80	63	51	44	61	51	44	59	50	43	37
1.00	71	60	52	69	59	52	67	60	51	44
1.25	77	67	60	76	66	59	73	64	58	51
1.50	82	72	65	80	71	65	77	69	63	55
2.00	89	80	74	87	79	73	83	76	71	62
2.50	93	85	79	90	83	78	86	80	75	66
3.00	96	89	83	93	87	82	89	84	79	70
4.00	100	94	89	97	92	88	92	88	84	75
5.00	102	97	93	99	95	91	94	91	88	77
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Dillon
 Test Date:14 May 2021

γ Range: 0 - 180DEG
 γ Interval: 2.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.00.446
 Humidity:65.0%
 Test Distance:6.950m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

NAME: C-FR-F16B-VB-36CV-65K-TT-12-80-2.45W-250	TYPE:	WEIGHT: 0.129kg/m
SPEC.:	DIM.: 6*15.5mm	SERIAL No.:
MFR.: CLEAR	SUR.: 15.5*1000mm	Shielding Angle:

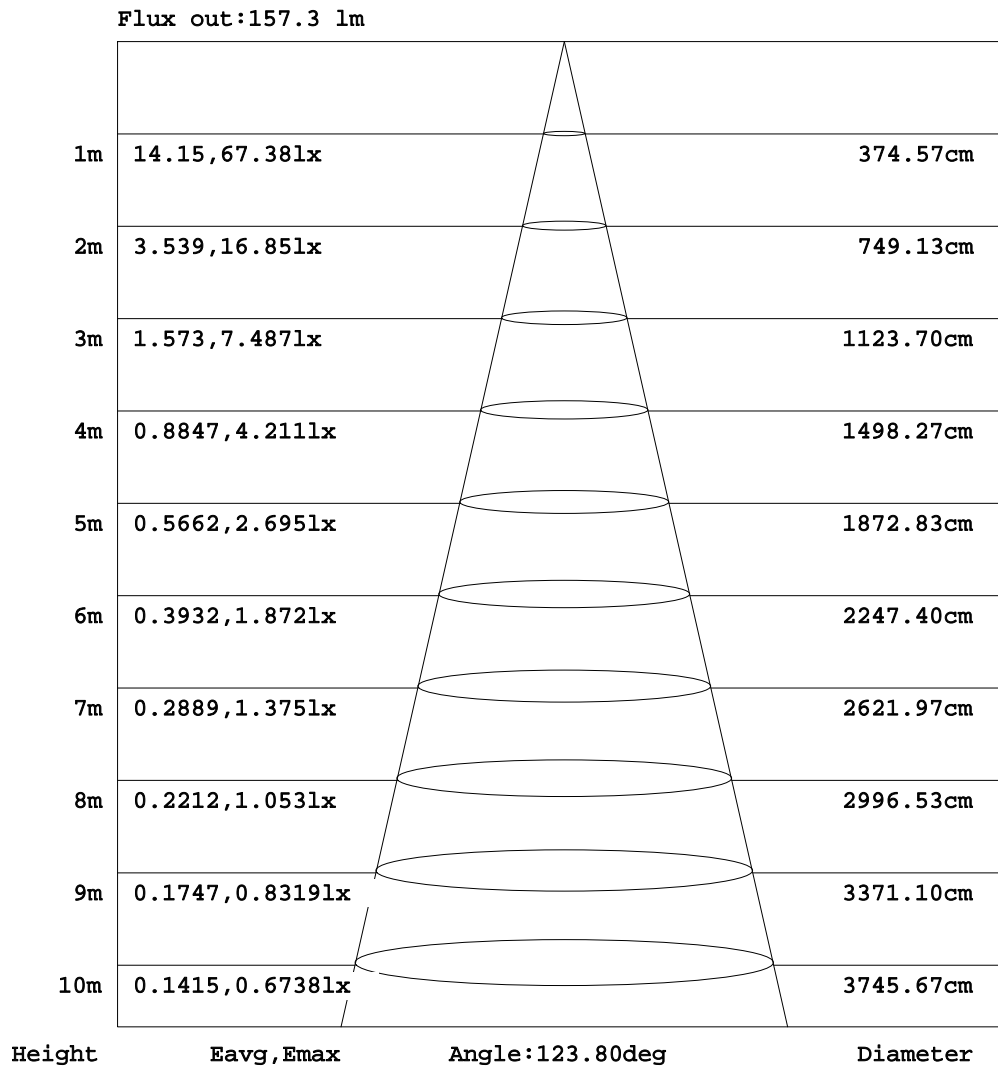


C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Dillon
 Test Date: 14 May 2021

γ Range: 0 - 180DEG
 γ Interval: 2.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.446
 Humidity: 65.0%
 Test Distance: 6.950m [K=1.0000]
 Remarks:

AAI Figure

NAME: C-FR-F16B-VB-36CV-65K-TT-12-80-2.45W-250	TYPE:	WEIGHT: 0.129kg/m
SPEC.:	DIM.: 6*15.5mm	SERIAL No.:
MFR.: CLEAR	SUR.: 15.5*1000mm	Shielding Angle:

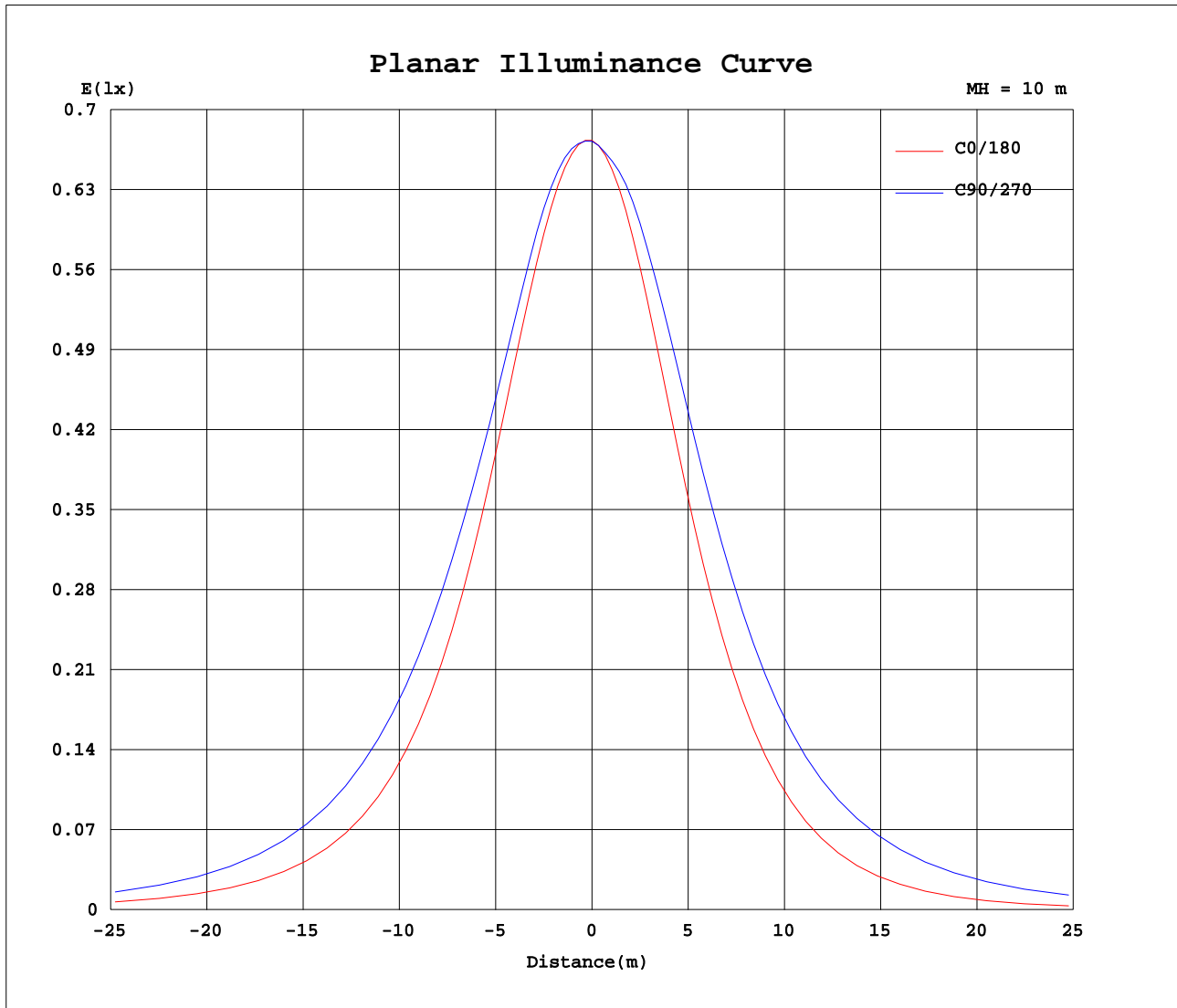


Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Dillon
 Test Date: 14 May 2021

γ Range: 0 - 180DEG
 γ Interval: 2.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.446
 Humidity: 65.0%
 Test Distance: 6.950m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Dillon
 Test Date: 14 May 2021

γ Range: 0 - 180DEG
 γ Interval: 2.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.446
 Humidity: 65.0%
 Test Distance: 6.950m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: C-FR-F16B-VB-36CV-65K-TT-12-80-2.45W-250	TYPE:	WEIGHT: 0.129kg/m
SPEC.:	DIM.: 6*15.5mm	SERIAL No.:
MFR.: CLEAR	SUR.: 15.5*1000mm	Shielding Angle:

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	30	60	90	120	150	180	210	240	270	300	330							
0	67.3	67.3	67.3	67.2	67.2	67.2	67.3	67.3	67.3	67.2	67.2	67.2							
5	67.4	67.6	67.6	67.5	67.2	66.7	66.5	66.4	66.5	66.7	66.9	67.1							
10	66.3	67.1	67.8	67.7	66.8	65.3	64.0	64.2	65.6	66.4	66.5	66.0							
15	64.8	66.3	67.4	67.2	66.1	63.8	61.6	62.7	64.9	65.8	66.0	65.1							
20	61.2	64.3	65.6	65.3	64.2	61.1	56.8	59.8	62.8	63.9	64.1	63.0							
25	58.1	62.4	63.9	63.6	62.3	58.8	53.0	57.5	61.1	62.2	62.5	61.1							
30	52.5	58.9	60.9	60.9	59.1	54.8	46.6	53.7	57.7	58.8	59.4	57.6							
35	48.3	56.2	58.7	59.0	56.9	51.8	42.2	50.7	55.1	56.3	56.8	55.0							
40	41.8	51.7	55.2	55.5	53.3	47.2	35.2	45.7	50.4	51.8	52.5	50.5							
45	37.4	48.5	52.6	52.7	50.5	43.9	30.5	41.9	46.8	48.3	49.0	47.1							
50	30.8	43.4	47.9	48.2	45.7	38.4	23.6	35.5	41.2	42.9	43.6	41.5							
55	26.6	39.7	44.3	44.6	42.1	34.4	19.1	31.0	37.6	39.4	39.9	37.3							
60	20.4	33.6	38.6	38.7	36.1	27.8	13.0	24.3	31.7	33.3	33.9	30.5							
65	16.6	29.0	34.2	34.3	31.6	23.2	9.35	19.7	27.3	29.0	29.6	25.8							
70	11.3	21.9	27.1	27.3	24.6	16.2	5.28	13.0	20.5	22.3	22.6	18.9							
75	8.01	17.3	22.2	22.5	20.0	11.6	3.48	9.12	16.0	17.6	17.7	14.6							
80	3.80	10.7	15.0	15.4	13.1	6.47	1.44	4.63	9.52	11.1	11.1	8.38							
85	1.49	6.82	10.6	11.1	8.95	3.78	0.37	2.49	5.56	7.01	6.99	4.87							
90	0.00	2.52	5.06	5.28	3.79	1.47	0.00	1.07	2.29	2.73	2.83	1.63							
95	0.00	1.59	3.07	2.96	2.39	1.22	0.00	0.87	1.88	2.15	2.11	1.25							
100	0.00	1.08	2.16	2.51	2.10	0.96	0.00	0.84	2.02	2.44	2.14	0.97							
105	0.00	1.09	2.42	2.90	2.43	1.08	0.00	0.90	2.19	2.68	2.36	1.04							
110	0.00	1.20	2.81	3.33	2.69	1.08	0.00	0.75	2.54	2.98	2.66	1.08							
115	0.00	1.29	3.07	3.58	2.75	1.03	0.00	0.68	2.70	3.16	2.87	1.04							
120	0.00	1.21	3.11	3.56	2.55	1.05	0.00	0.45	2.58	3.68	3.24	0.84							
125	0.00	1.16	3.42	3.99	2.94	1.07	0.00	0.20	2.34	3.96	3.21	0.59							
130	0.00	0.92	3.68	4.70	3.04	1.17	0.00	0.00	2.65	4.50	3.28	0.34							
135	0.00	0.73	3.92	4.84	3.28	1.14	0.00	0.00	2.33	5.28	3.50	0.30							
140	0.00	0.51	4.18	5.61	3.65	0.97	0.00	0.00	0.91	4.93	3.08	0.04							
145	0.00	0.34	3.34	5.51	3.29	0.61	0.00	0.00	0.27	3.35	2.19	0.01							
150	0.00	0.12	2.02	3.31	1.84	0.23	0.01	0.01	0.00	1.62	0.62	0.02							
155	0.00	0.09	1.07	2.16	0.87	0.11	0.00	0.03	0.01	0.46	0.12	0.00							
160	0.00	0.03	0.29	0.56	0.30	0.07	0.01	0.02	0.01	0.00	0.05	0.01							
165	0.01	0.03	0.12	0.21	0.15	0.03	0.00	0.02	0.02	0.01	0.00	0.01							
170	0.02	0.02	0.02	0.04	0.04	0.05	0.04	0.03	0.03	0.01	0.01	0.03							
175	0.03	0.01	0.05	0.02	0.02	0.02	0.02	0.04	0.02	0.00	0.00	0.03							
180	0.04	0.03	0.01	0.02	0.02	0.02	0.05	0.04	0.02	0.02	0.02	0.03							

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Dillon
 Test Date: 14 May 2021

γ Range: 0 - 180DEG
 γ Interval: 2.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.00.446
 Humidity: 65.0%
 Test Distance: 6.950m [K=1.0000]
 Remarks: