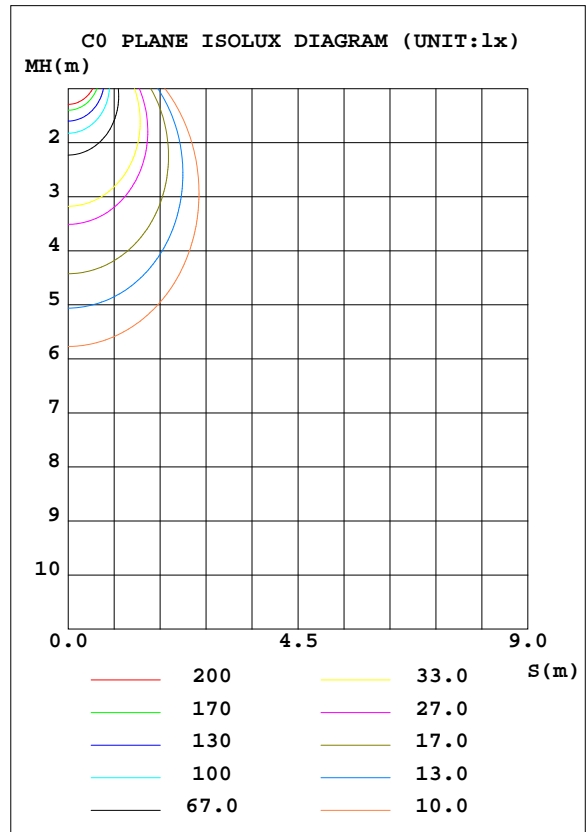
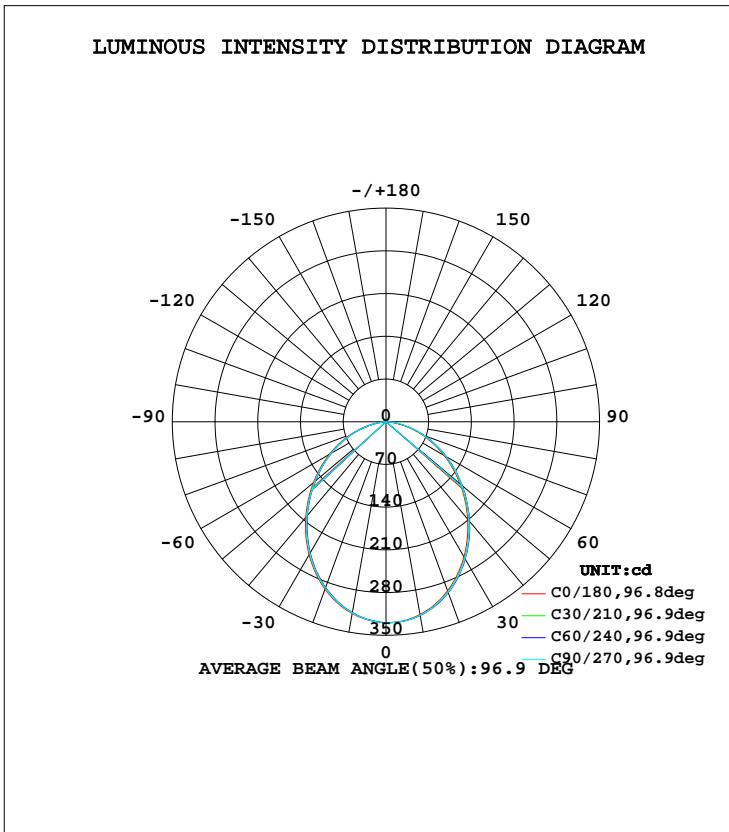


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:240.5V I:0.0380A P:8.700W PF:0.9440 Lamp Flux:785.21lx1 lm		
NAME: ID8W-CC-F 3000K	TYPE:8W	WEIGHT:
DIM.:	SPEC.:3000K	SERIAL No.:1
MFR.:	SUR.:0.04	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 90.25 lm/W			
MODEL	ID8W-CC-F 3000K	Imax(cd)	329.4	S/MH(C0/180)	1.15
NOMINAL POWER(W)	8	LOR(%)	100.0	S/MH(C90/270)	1.14
RATED VOLTAGE(V)	240	TOTAL FLUX(lm)	785.21	η UP, DN(C0-180)	0.0, 48.9
NOMINAL FLUX(lm)	785.211	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 51.1
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	240.5	η down(%)	100.0	CIBSE SHR MAX	1.30



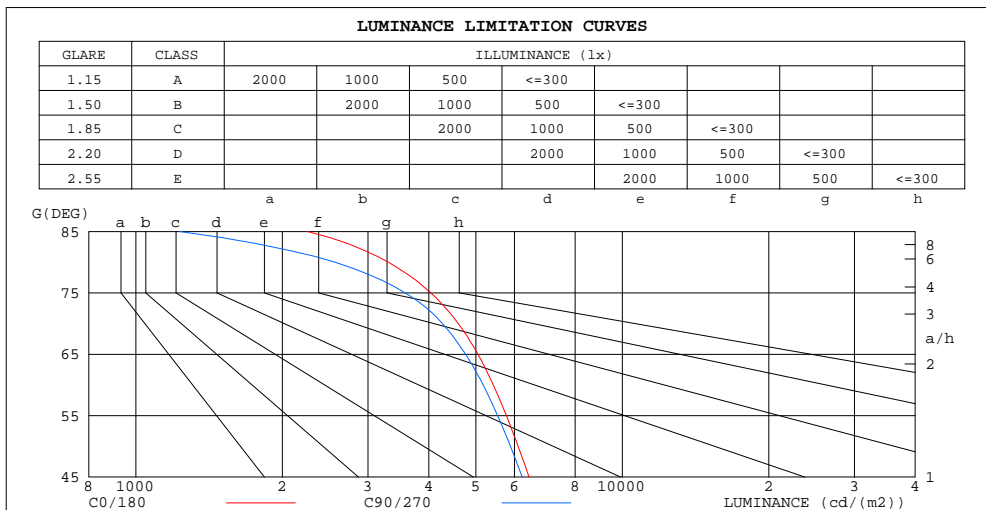
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2018-07-04

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:9.600m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM
AND LUMINANCE LIMITATION CURVES

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	Φ lum,lamp
10	319.1	317.9	318.0	319.2	320.7	322.0	322.1	320.7	0- 10	30.98	30.98	3.95,3.95
20	292.1	289.8	290.0	292.1	294.9	297.4	297.4	294.9	10- 20	86.92	117.9	15,15
30	251.9	249.1	249.2	252.0	255.5	258.9	259.0	255.7	20- 30	126.5	244.5	31.1,31.1
40	204.5	201.3	201.3	204.3	208.2	211.9	212.1	208.6	30- 40	144.3	388.7	49.5,49.5
50	155.2	152.0	151.9	154.6	158.4	162.1	162.5	159.2	40- 50	140.2	528.9	67.4,67.4
60	107.4	104.2	103.9	106.2	109.6	113.2	113.8	111.0	50- 60	118.6	647.5	82.5,82.5
70	62.23	59.07	58.58	60.59	63.39	66.75	67.51	65.24	60- 70	84.57	732.1	93.2,93.2
80	22.68	18.21	17.88	20.91	22.89	24.12	25.40	24.84	70- 80	44.07	776.1	98.8,98.8
90	0	0	0	0	0	0	0.0496	0	80- 90	9.081	785.2	100,100
100									90-100			
110									100-110			
120									110-120			
130									120-130			
140									130-140			
150									140-150			
160									150-160			
170									160-170			
180									170-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	2252	1229
80	3303	2566
75	4039	3579
70	4601	4269
65	5048	4761
60	5430	5177
55	5776	5543
50	6106	5888
45	6432	6225

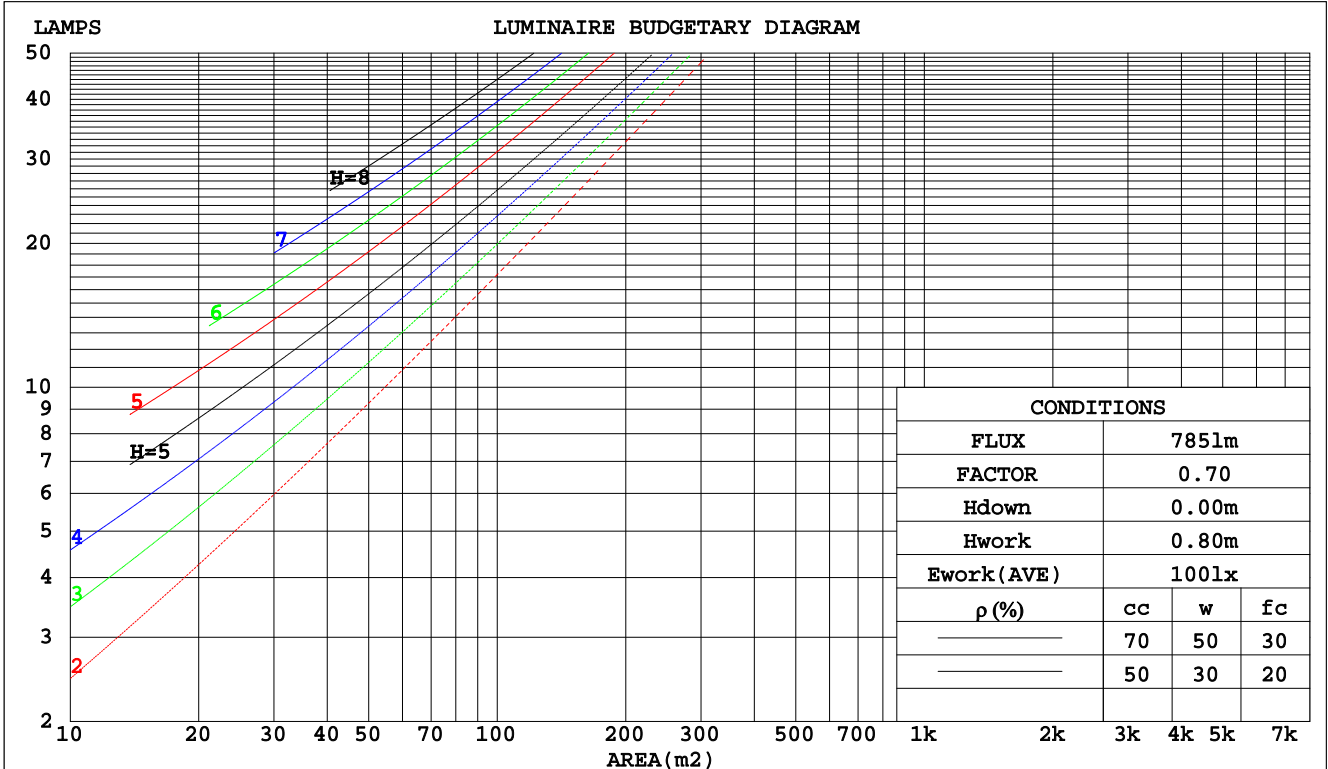
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2018-07-04

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
Humidity:65.0%
Test Distance:9.600m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:240.5V I:0.0380A P:8.700W PF:0.9440 Lamp Flux:785.21lx1 lm		
NAME: ID8W-CC-F 3000K	TYPE:8W	WEIGHT:
DIM.:	SPEC.:3000K	SERIAL No.:1
MFR.:	SUR.:0.04	PROTECTION ANGLE:

pcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	
pw																0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															
	Coefficients of Utilization(CU)															
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	.00
1.0	1.05	1.01	.97	1.03	.99	.96	.99	.96	.93	.95	.92	.90	.91	.89	.87	.85
2.0	.92	.86	.80	.90	.84	.79	.87	.82	.78	.84	.79	.76	.81	.77	.74	.72
3.0	.82	.74	.68	.80	.73	.67	.77	.71	.66	.74	.69	.65	.72	.67	.64	.61
4.0	.73	.64	.58	.71	.63	.57	.69	.62	.57	.67	.61	.56	.64	.59	.55	.53
5.0	.65	.57	.50	.64	.56	.50	.62	.55	.49	.60	.54	.49	.58	.53	.48	.46
6.0	.59	.50	.44	.58	.50	.44	.56	.49	.43	.55	.48	.43	.53	.47	.43	.41
7.0	.54	.45	.39	.53	.45	.39	.51	.44	.39	.50	.43	.38	.49	.43	.38	.36
8.0	.49	.41	.35	.48	.40	.35	.47	.40	.35	.46	.39	.35	.45	.39	.34	.33
9.0	.45	.37	.32	.45	.37	.32	.43	.36	.31	.42	.36	.31	.41	.35	.31	.29
10.0	.42	.34	.29	.41	.34	.29	.40	.33	.29	.39	.33	.29	.38	.33	.28	.27



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2018-07-04

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:9.600m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:240.5V I:0.0380A P:8.700W PF:0.9440 Lamp Flux:785.21lx1 lm		
NAME: ID8W-CC-F 3000K	TYPE:8W	WEIGHT:
DIM.:	SPEC.:3000K	SERIAL No.:1
MFR.:	SUR.:0.04	PROTECTION 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	.288	.164	.052	.281	.160	.051	.268	.154	.049	.256	.147	.047	.244	.142	.046	
2.0	.274	.150	.046	.268	.148	.046	.257	.143	.044	.246	.138	.043	.236	.134	.042	
3.0	.256	.136	.041	.251	.134	.040	.240	.130	.040	.231	.127	.039	.222	.123	.038	
4.0	.238	.124	.036	.233	.122	.036	.224	.119	.035	.216	.116	.035	.208	.113	.034	
5.0	.221	.113	.033	.217	.111	.032	.209	.109	.032	.201	.106	.032	.194	.104	.031	
6.0	.206	.103	.030	.202	.102	.029	.195	.100	.029	.188	.098	.029	.182	.096	.028	
7.0	.192	.095	.027	.189	.094	.027	.182	.092	.027	.176	.090	.026	.171	.089	.026	
8.0	.180	.088	.025	.177	.087	.025	.171	.086	.024	.166	.084	.024	.161	.083	.024	
9.0	.169	.082	.023	.166	.081	.023	.161	.080	.023	.156	.078	.022	.152	.077	.022	
10.0	.159	.076	.021	.157	.076	.021	.152	.075	.021	.148	.073	.021	.144	.072	.021	

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	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.179	.156	.136	.153	.134	.117	.105	.092	.081	.060	.053	.047	.019	.017	.015	
2.0	.170	.132	.100	.146	.114	.087	.100	.079	.060	.058	.046	.035	.018	.015	.012	
3.0	.162	.114	.076	.139	.099	.066	.095	.068	.046	.055	.040	.027	.018	.013	.009	
4.0	.154	.101	.060	.132	.087	.052	.091	.061	.037	.053	.036	.022	.017	.012	.007	
5.0	.147	.090	.049	.126	.078	.042	.087	.055	.030	.050	.032	.018	.016	.010	.006	
6.0	.140	.082	.040	.120	.071	.035	.083	.050	.025	.048	.029	.015	.015	.010	.005	
7.0	.133	.075	.034	.114	.065	.030	.079	.045	.021	.046	.027	.013	.015	.009	.004	
8.0	.127	.069	.029	.109	.060	.026	.075	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.121	.064	.026	.104	.056	.022	.072	.039	.016	.042	.023	.010	.014	.008	.003	
10.0	.115	.060	.023	.099	.052	.020	.069	.037	.014	.040	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2018-07-04

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:9.600m [K=1.0000]
 Remarks:

Uncorrected UGR Table

Test:U:240.5V I:0.0380A P:8.700W PF:0.9440 Lamp Flux:785.21lx1 lm										
NAME: ID8W-CC-F 3000K					TYPE:8W			WEIGHT:		
DIM.:					SPEC.:3000K			SERIAL No.:1		
MFR.:					SUR.:0.04			PROTECTION ANGLE:		
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
x = 2H y = 2H	18.7	20.1	18.9	20.3	20.5	18.5	19.9	18.7	20.1	20.3
3H	19.9	21.3	20.2	21.5	21.7	19.7	21.0	20.0	21.3	21.5
4H	20.4	21.7	20.7	21.9	22.2	20.1	21.4	20.4	21.6	21.9
6H	20.7	21.9	21.0	22.2	22.4	20.3	21.5	20.6	21.8	22.0
8H	20.8	21.9	21.1	22.2	22.5	20.3	21.5	20.6	21.7	22.0
12H	20.8	21.9	21.1	22.2	22.5	20.3	21.4	20.6	21.7	22.0
4H 2H	19.1	20.4	19.5	20.7	20.9	19.0	20.3	19.3	20.5	20.8
3H	20.6	21.7	20.9	22.0	22.3	20.4	21.5	20.7	21.8	22.1
4H	21.2	22.2	21.5	22.5	22.8	20.9	21.9	21.2	22.2	22.5
6H	21.6	22.5	22.0	22.8	23.2	21.1	22.0	21.5	22.4	22.8
8H	21.7	22.5	22.1	22.9	23.2	21.2	22.0	21.6	22.4	22.8
12H	21.7	22.5	22.1	22.9	23.3	21.2	21.9	21.6	22.3	22.7
8H 4H	21.3	22.2	21.7	22.5	22.9	21.0	21.9	21.4	22.2	22.6
6H	21.8	22.5	22.2	22.9	23.3	21.4	22.1	21.8	22.5	22.9
8H	22.0	22.6	22.4	23.0	23.4	21.5	22.1	21.9	22.5	22.9
12H	22.0	22.6	22.5	23.0	23.5	21.5	22.0	21.9	22.4	22.9
12H 4H	21.3	22.1	21.7	22.5	22.9	21.0	21.8	21.5	22.2	22.6
6H	21.8	22.4	22.3	22.8	23.3	21.4	22.0	21.9	22.4	22.9
8H	22.0	22.5	22.4	22.9	23.4	21.5	22.0	22.0	22.5	22.9
Variations with the observer position at spacings:										
S = 1.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
1.5H	+ 0.1 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.3 / - 0.3					+ 0.4 / - 0.3				

CIE Pub.117 Corrected 785.2 lm Total Lamp Luminous Flux. (8log(F/F0) = -0.8)

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2018-07-04

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:9.600m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:240.5V I:0.0380A P:8.700W PF:0.9440 Lamp Flux:785.21lx1 lm		
NAME: ID8W-CC-F 3000K	TYPE:8W	WEIGHT:
DIM.:	SPEC.:3000K	SERIAL No.:1
MFR.:	SUR.:0.04	PROTECTION ANGLE:

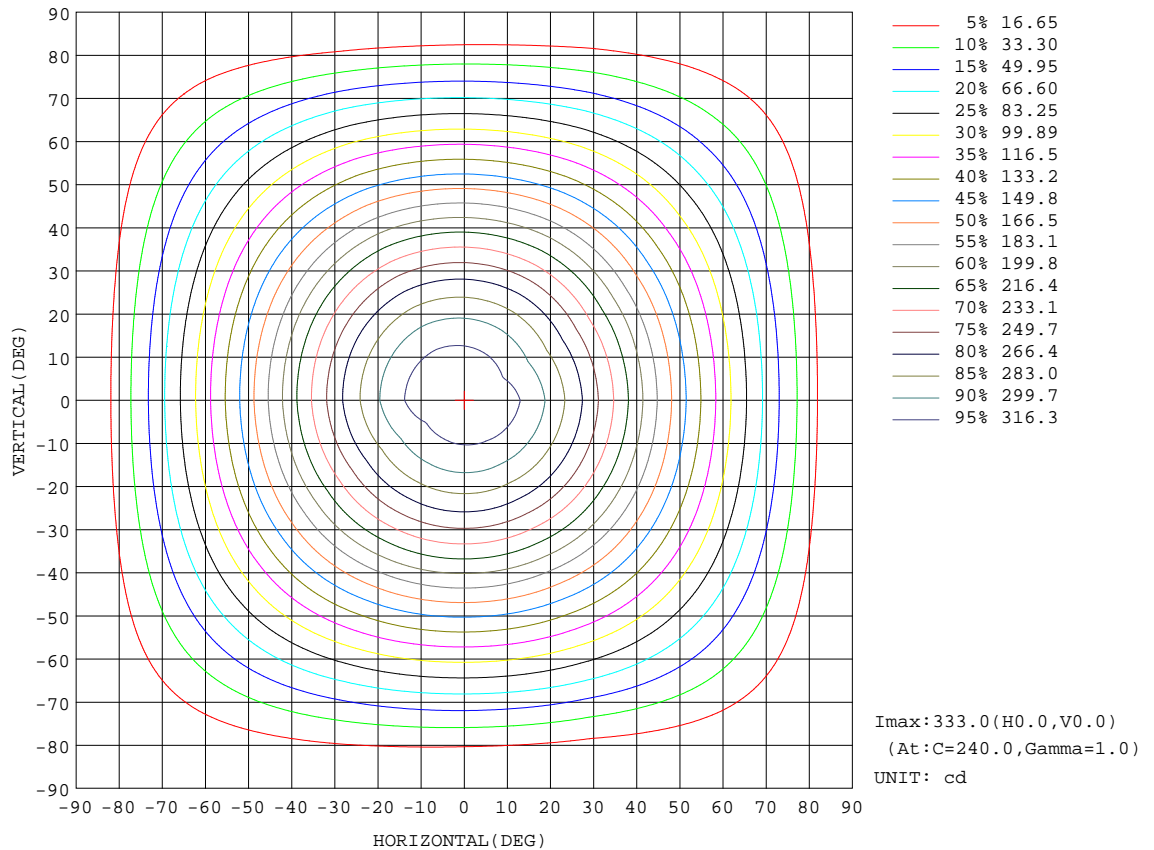
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	60	49	43	60	49	42	58	48	42	36
0.80	70	59	52	69	59	52	68	58	52	45
1.00	79	68	61	77	68	61	75	69	60	54
1.25	85	76	69	84	75	69	81	74	68	61
1.50	90	81	74	89	80	74	86	78	73	66
2.00	97	89	83	95	88	82	92	85	81	73
2.50	100	93	88	98	92	87	95	89	85	77
3.00	104	97	92	101	96	91	98	93	89	81
4.00	107	102	98	105	100	96	101	97	94	85
5.00	110	105	101	107	103	100	103	100	97	88
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:DAMIN
 Test Date:2018-07-04

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:9.600m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:240.5V I:0.0380A P:8.700W PF:0.9440 Lamp Flux:785.21lx1 lm		
NAME: ID8W-CC-F 3000K	TYPE:8W	WEIGHT:
DIM.:	SPEC.:3000K	SERIAL No.:1
MFR.:	SUR.:0.04	PROTECTION ANGLE:

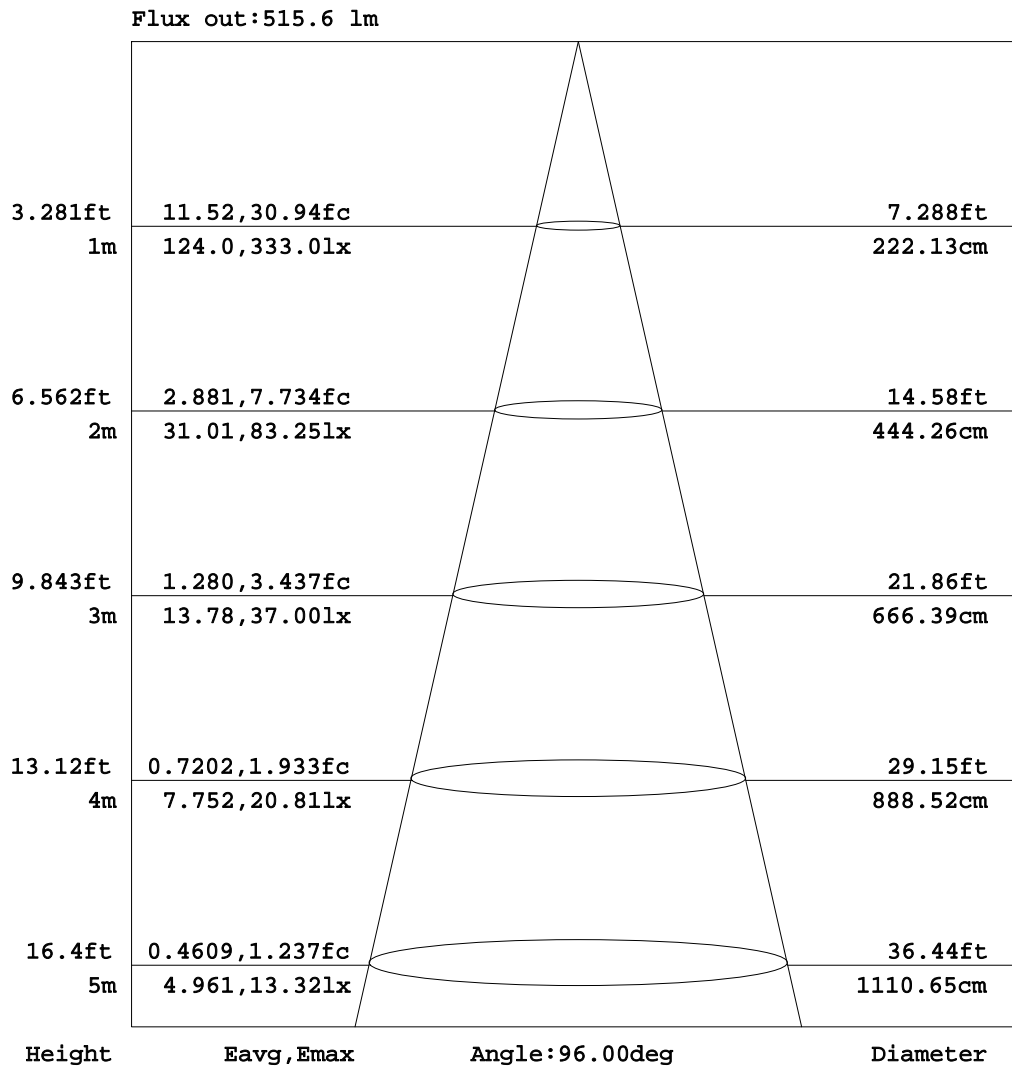


C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2018-07-04

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity: 65.0%
 Test Distance: 9.600m [K=1.0000]
 Remarks:

AAI Figure

Test:U:240.5V I:0.0380A P:8.700W PF:0.9440 Lamp Flux:785.21lx1 lm		
NAME: ID8W-CC-F 3000K	TYPE:8W	WEIGHT:
DIM.:	SPEC.:3000K	SERIAL No.:1
MFR.:	SUR.:0.04	PROTECTION ANGLE:



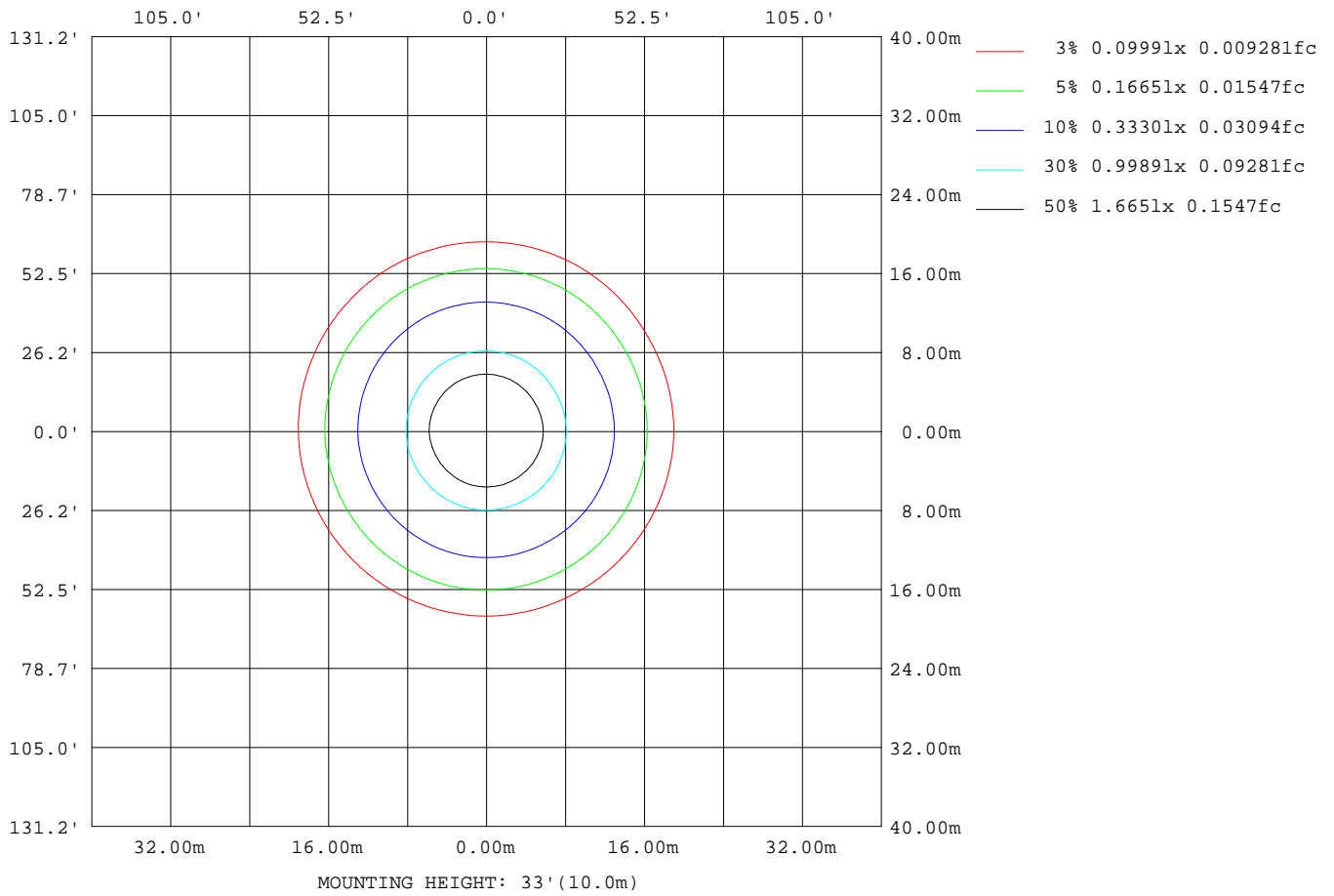
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2018-07-04

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:9.600m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

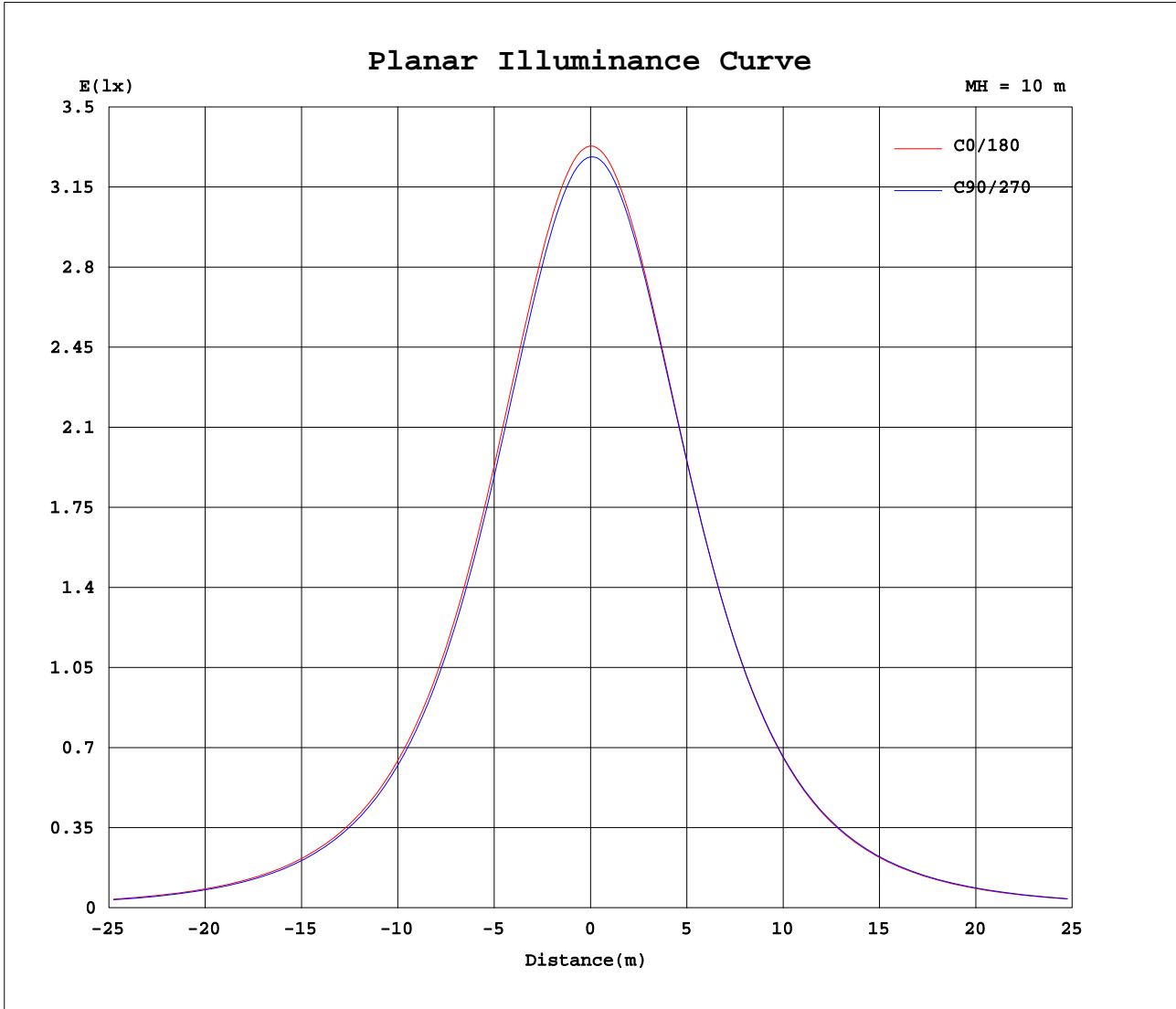
Test:U:240.5V I:0.0380A P:8.700W PF:0.9440 Lamp Flux:785.21lx1 lm		
NAME: ID8W-CC-F 3000K	TYPE:8W	WEIGHT:
DIM.:	SPEC.:3000K	SERIAL No.:1
MFR.:	SUR.:0.04	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2018-07-04

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:9.600m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2018-07-04

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity: 65.0%
 Test Distance: 9.600m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:240.5V I:0.0380A P:8.700W PF:0.9440 Lamp Flux:785.21lx1 lm		
NAME: ID8W-CC-F 3000K	TYPE:8W	WEIGHT:
DIM.:	SPEC.:3000K	SERIAL No.:1
MFR.:	SUR.:0.04	PROTECTION ANGLE:

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	30	60	90	120	150	180	210	240	270	300	330						
0	329	329	329	329	329	329	329	329	329	329	329	329						
5	326	326	326	326	326	327	327	328	328	328	328	327						
10	319	318	318	318	319	320	321	322	322	322	321	320						
15	307	306	305	306	307	309	310	311	312	312	311	309						
20	292	290	289	290	291	293	295	297	298	297	296	294						
25	273	272	270	271	272	275	277	279	280	280	278	275						
30	252	250	248	249	251	253	256	258	260	259	257	254						
35	229	227	225	226	227	230	233	235	237	236	235	231						
40	204	202	200	201	203	206	208	211	213	212	210	207						
45	180	178	176	177	178	181	183	186	188	187	186	182						
50	155	153	151	152	153	156	158	161	163	162	161	157						
55	131	129	127	128	129	132	134	136	139	138	136	133						
60	107	105	103	104	105	108	110	112	114	114	113	109						
65	84.4	82.1	80.3	80.7	81.7	84.3	86.1	88.5	90.7	90.3	89.1	86.2						
70	62.2	60.1	58.0	58.6	59.4	61.8	63.4	65.7	67.8	67.5	66.6	63.9						
75	41.3	39.1	35.8	37.2	38.5	40.5	42.0	44.1	45.3	45.8	45.2	42.8						
80	22.7	20.0	16.5	17.9	20.0	21.8	22.9	24.1	24.2	25.4	25.8	23.9						
85	7.76	5.68	3.58	4.30	5.73	6.87	7.68	8.15	7.64	8.85	9.96	8.59						
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00					

C Range: 0 - 360DEG γ Range: 0 - 90DEG
 C Interval: 30.0DEG γ Interval: 1.0DEG
 Test Speed: HIGH Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Temperature:25.3DEG Humidity:65.0%
 Operators:DAMIN Test Distance:9.600m [K=1.0000]
 Test Date:2018-07-04 Remarks: