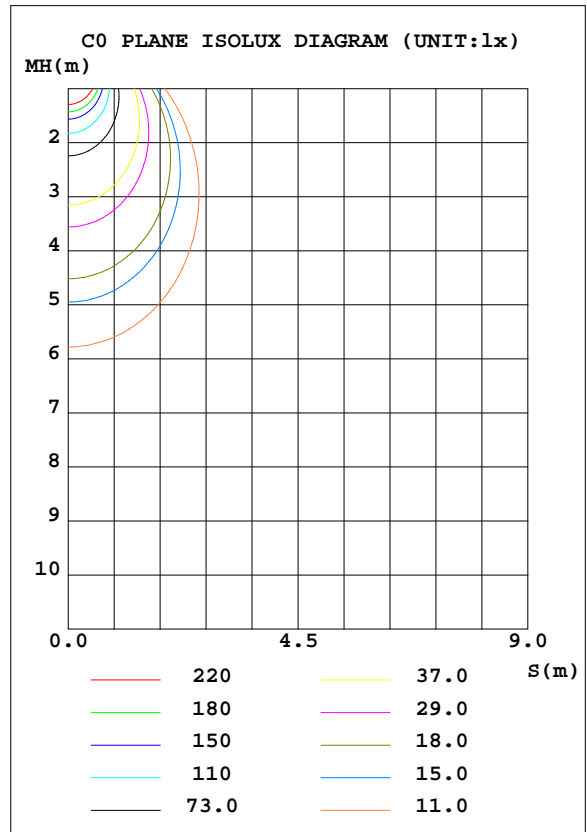
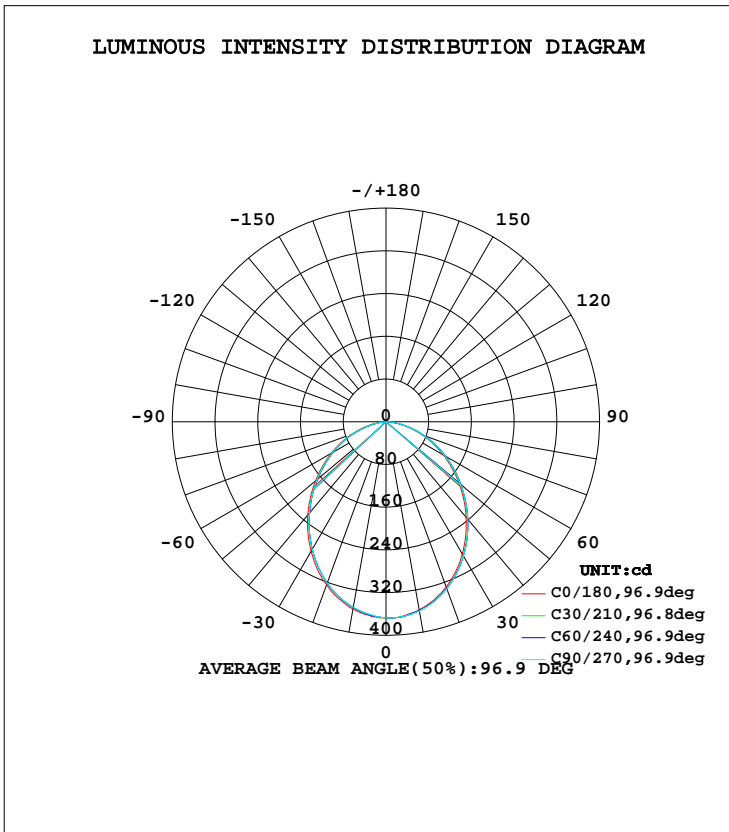


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:240.5V I:0.0360A P:8.350W PF:0.9390 Lamp Flux:876.378x1 lm		
NAME: ID8W-CC-F 4000K	TYPE:8W	WEIGHT:
DIM.:	SPEC.:4000K	SERIAL No.:1
MFR.:	SUR.:0.04	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 104.96 lm/W			
MODEL	ID8W-CC-F 4000K	I _{max} (cd)	367.6	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)	876.38	η UP, DN(C0-180)	0.0, 48.6
NOMINAL FLUX(lm)	876.378	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 51.4
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	240.6	η down(%)	100.0	CIBSE SHR MAX	1.30



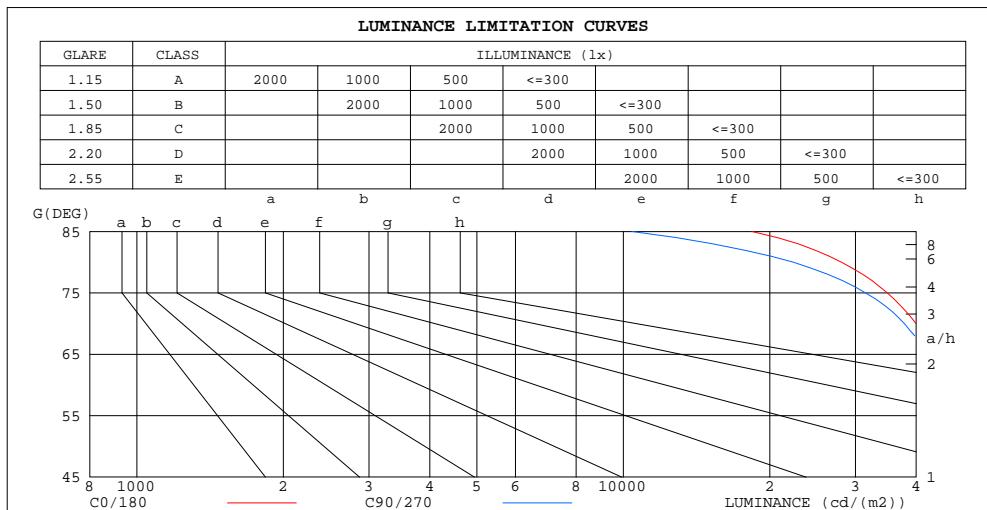
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2018-07-04

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	$\#lum, lamp$
10	356.0	353.4	353.0	355.5	357.7	359.3	359.7	356.9	0- 10	34.52	34.52	3.94,3.94
20	324.9	321.8	321.8	325.4	329.5	332.3	333.3	328.5	10- 20	96.83	131.4	15,15
30	280.5	276.2	276.1	281.1	285.8	289.9	290.2	284.9	20- 30	141.0	272.4	31.1,31.1
40	227.8	223.0	223.1	228.3	233.5	237.9	238.3	232.5	30- 40	160.9	433.3	49.4,49.4
50	171.9	167.8	168.3	172.8	178.1	182.3	182.2	177.3	40- 50	156.6	589.9	67.3,67.3
60	118.7	114.8	115.0	119.0	123.9	127.9	128.0	123.6	50- 60	132.3	722.2	82.4,82.4
70	68.38	64.59	64.69	68.10	72.26	76.08	76.39	72.69	60- 70	94.52	816.7	93.2,93.2
80	24.37	19.34	19.42	23.74	26.73	28.32	29.25	27.62	70- 80	49.36	866.1	98.8,98.8
90	0	0	0	0	0	0.0989	0.3277	0.0248	80- 90	10.30	876.4	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	18377	10411
80	28068	22367
75	34885	31468
70	39986	37828
65	44043	42251
60	47498	46009
55	50602	49249
50	53475	52379
45	56626	55339

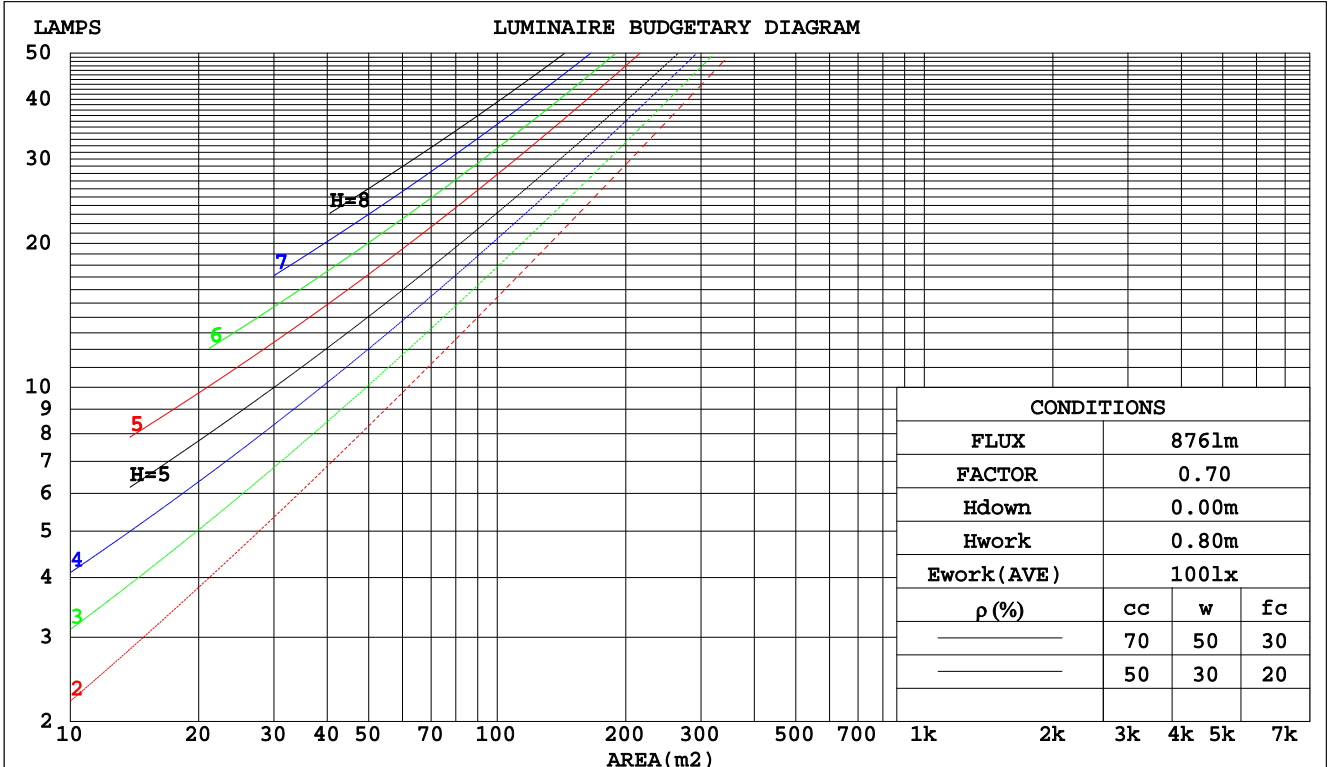
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2018-07-04

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:0.0360A P:8.350W PF:0.9390 Lamp Flux:876.378x1 lm		
NAME: ID8W-CC-F 4000K	TYPE:8W	WEIGHT:
DIM.:	SPEC.:4000K	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%	0
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	.67	.80	.73	.67	.77	.71	.66	.74	.69	.65	.72	.67	.63	.61
4.0	.73	.64	.58	.71	.63	.57	.69	.62	.57	.67	.61	.56	.64	.59	.55	.53
5.0	.65	.56	.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	.32
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:0.0360A P:8.350W PF:0.9390 Lamp Flux:876.378x1 lm		
NAME: ID8W-CC-F 4000K	TYPE:8W	WEIGHT:
DIM.:	SPEC.:4000K	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	.148	.047	.245	.142	.046	
2.0	.275	.151	.046	.269	.148	.046	.257	.143	.044	.246	.138	.043	.236	.134	.042	
3.0	.256	.136	.041	.251	.134	.040	.241	.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:0.0360A P:8.350W PF:0.9390 Lamp Flux:876.378x1 lm										
NAME: ID8W-CC-F 4000K					TYPE:8W			WEIGHT:		
DIM.:					SPEC.:4000K			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	26.1	27.6	26.4	27.8	28.0	26.0	27.5	26.3	27.7	27.9
3H	27.4	28.7	27.7	29.0	29.2	27.2	28.6	27.5	28.8	29.0
4H	27.9	29.1	28.2	29.4	29.6	27.6	28.9	27.9	29.1	29.4
6H	28.1	29.3	28.5	29.6	29.9	27.8	29.0	28.1	29.3	29.6
8H	28.2	29.4	28.5	29.6	29.9	27.8	29.0	28.2	29.3	29.5
12H	28.2	29.3	28.5	29.6	29.9	27.8	28.9	28.1	29.2	29.5
4H 2H	26.6	27.9	26.9	28.2	28.4	26.5	27.8	26.8	28.1	28.3
3H	28.1	29.2	28.4	29.5	29.8	27.9	29.0	28.2	29.3	29.6
4H	28.6	29.6	29.0	30.0	30.3	28.4	29.4	28.8	29.7	30.0
6H	29.0	29.9	29.4	30.2	30.6	28.6	29.5	29.0	29.9	30.3
8H	29.1	29.9	29.5	30.3	30.7	28.7	29.5	29.1	29.9	30.3
12H	29.1	29.9	29.5	30.3	30.7	28.7	29.4	29.1	29.8	30.2
8H 4H	28.8	29.6	29.2	30.0	30.4	28.5	29.4	29.0	29.7	30.1
6H	29.2	29.9	29.7	30.3	30.7	28.9	29.6	29.3	30.0	30.4
8H	29.4	30.0	29.8	30.4	30.8	28.9	29.6	29.4	30.0	30.4
12H	29.4	30.0	29.9	30.4	30.9	29.0	29.5	29.4	29.9	30.4
12H 4H	28.7	29.5	29.2	29.9	30.3	28.5	29.3	29.0	29.7	30.1
6H	29.2	29.8	29.7	30.3	30.7	28.9	29.5	29.3	29.9	30.4
8H	29.4	29.9	29.8	30.3	30.8	29.0	29.5	29.4	29.9	30.4
Variations with the observer position at spacings:										
S = 1.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
1.5H	+ 0.1 / - 0.3					+ 0.1 / - 0.3				
2.0H	+ 0.4 / - 0.3					+ 0.4 / - 0.3				

CIE Pub.117 Corrected 876.4 lm Total Lamp Luminous Flux. (8log(F/F0) = -0.5)

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:0.0360A P:8.350W PF:0.9390 Lamp Flux:876.378x1 lm		
NAME: ID8W-CC-F 4000K	TYPE:8W	WEIGHT:
DIM.:	SPEC.:4000K	SERIAL No.:1
MFR.:	SUR.:0.04	PROTECTION ANGLE:

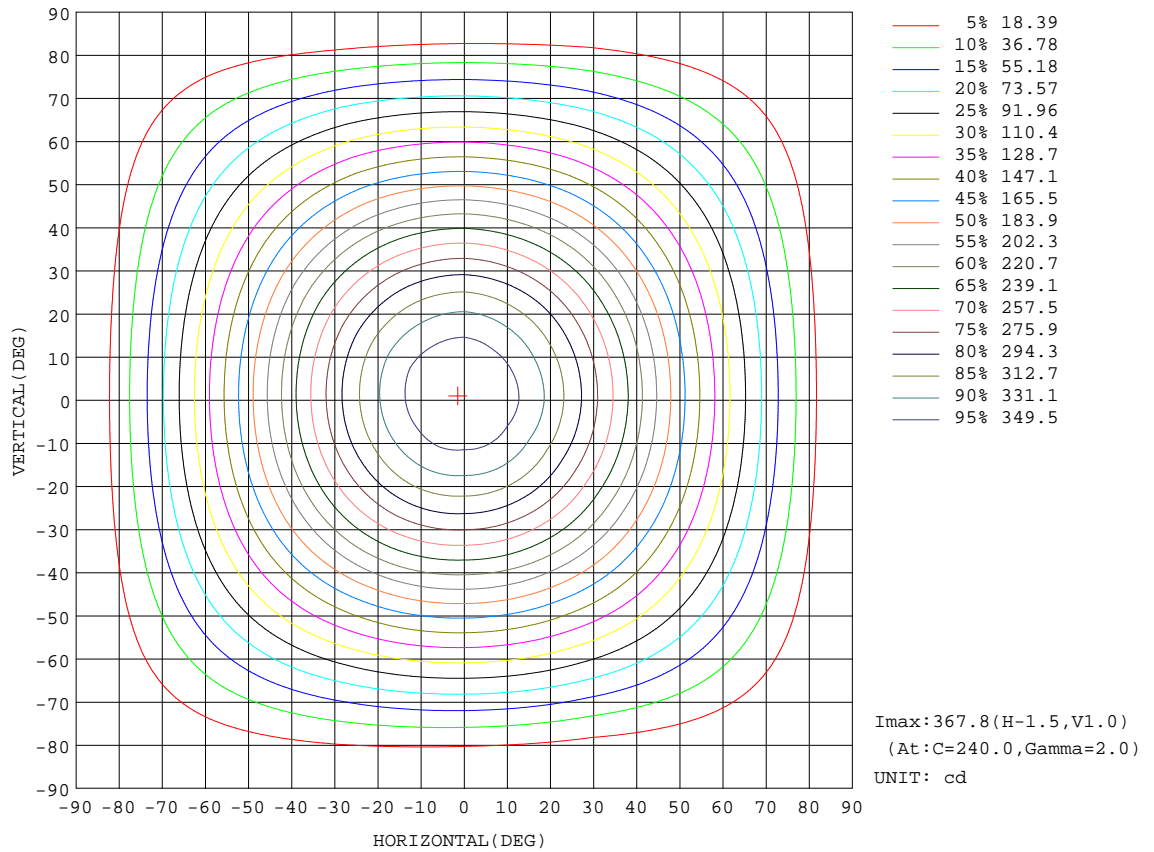
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	60	49	42	60	49	42	58	48	42	36
0.80	70	59	52	69	59	52	68	58	52	45
1.00	79	68	61	77	67	61	75	69	60	54
1.25	85	76	69	84	75	68	81	73	68	61
1.50	90	81	74	89	80	74	86	78	73	66
2.00	97	89	83	95	88	82	92	85	80	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:0.0360A P:8.350W PF:0.9390 Lamp Flux:876.378x1 lm		
NAME: ID8W-CC-F 4000K	TYPE:8W	WEIGHT:
DIM.:	SPEC.:4000K	SERIAL No.:1
MFR.:	SUR.:0.04	PROTECTION ANGLE:

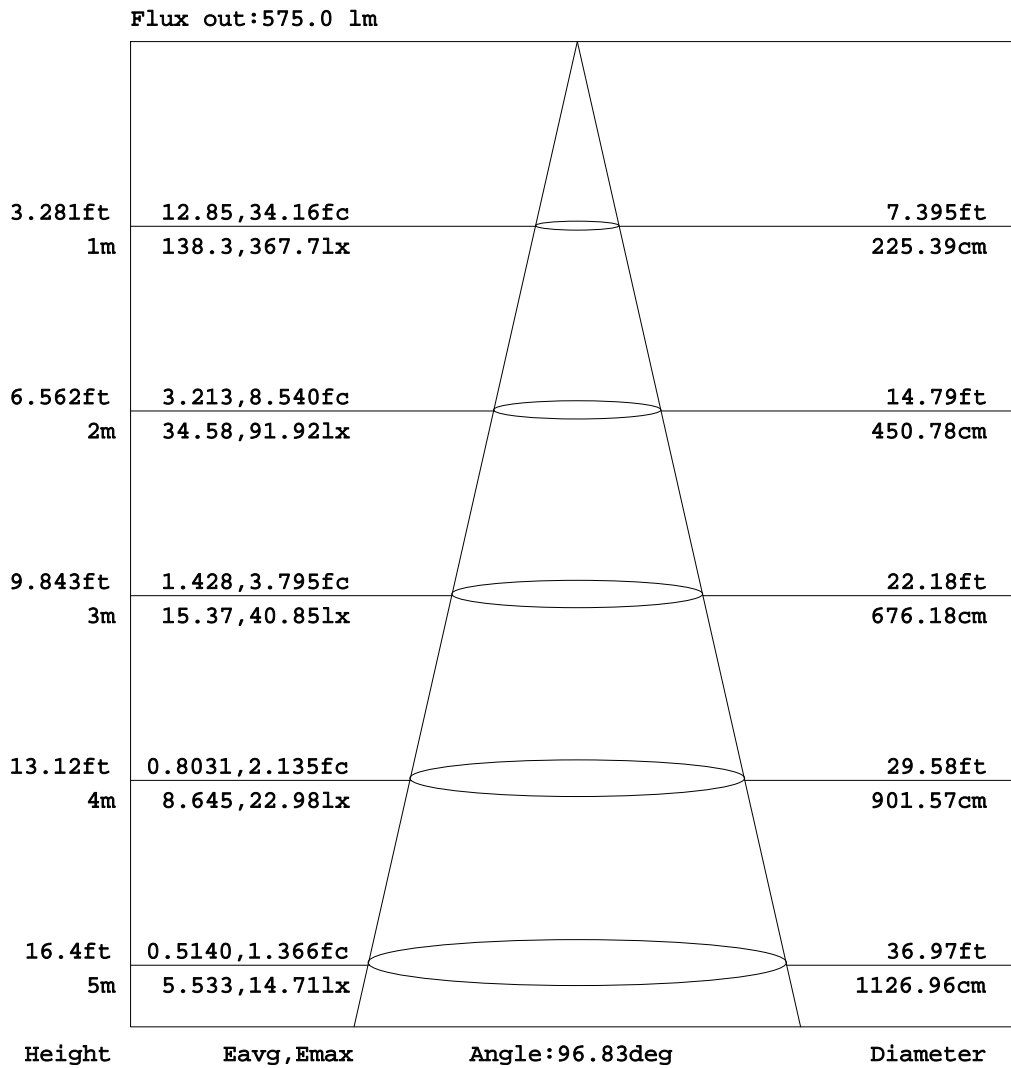


C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2018-07-04

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:0.0360A P:8.350W PF:0.9390 Lamp Flux:876.378x1 lm		
NAME: ID8W-CC-F 4000K	TYPE:8W	WEIGHT:
DIM.:	SPEC.:4000K	SERIAL No.:1
MFR.:	SUR.:0.04	PROTECTION ANGLE:



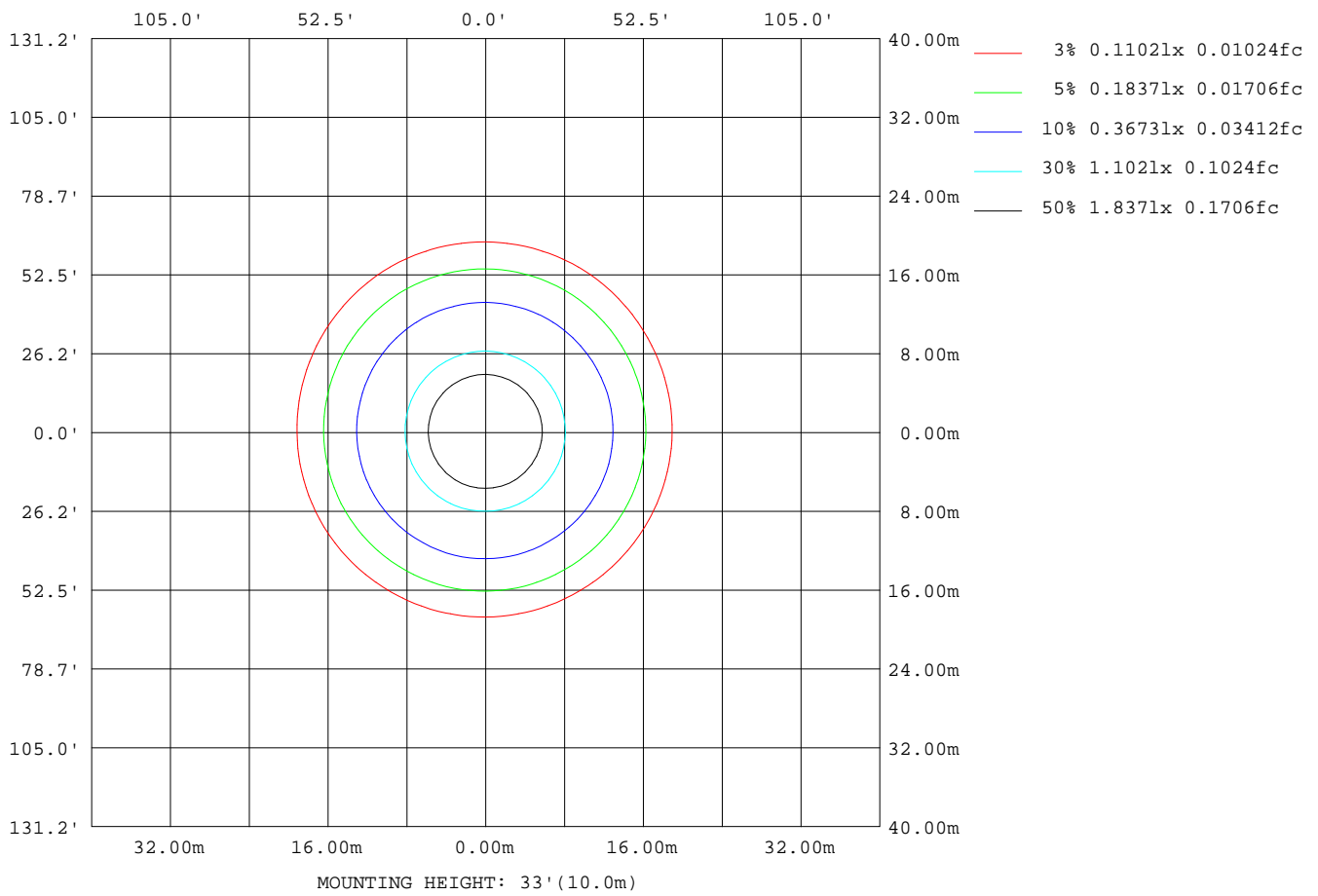
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

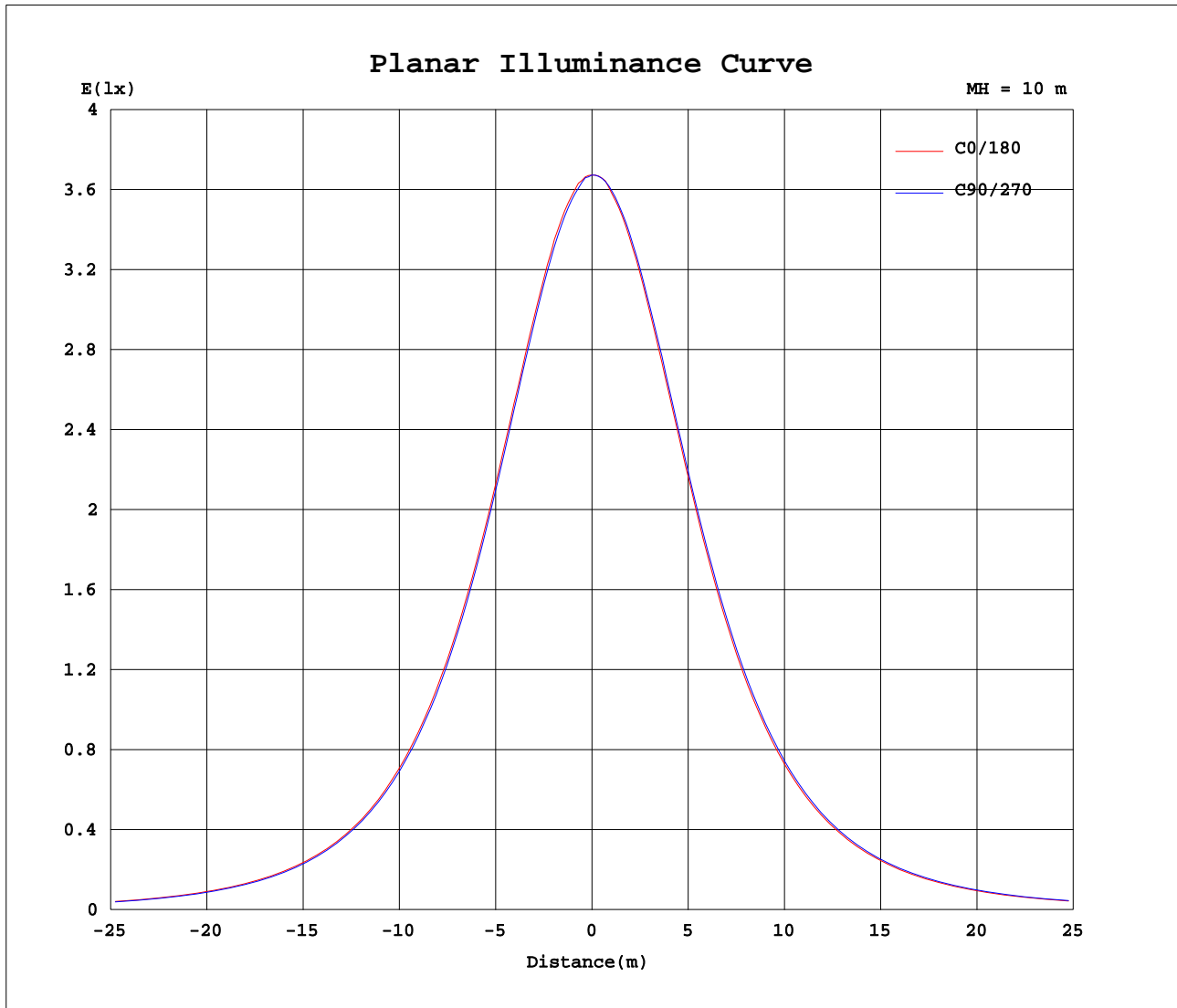
Test:U:240.5V I:0.0360A P:8.350W PF:0.9390 Lamp Flux:876.378x1 lm		
NAME: ID8W-CC-F 4000K	TYPE:8W	WEIGHT:
DIM.:	SPEC.:4000K	SERIAL No.:1
MFR.:	SUR.:0.04	PROTECTION ANGLE:



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:0.0360A P:8.350W PF:0.9390 Lamp Flux:876.378x1 lm		
NAME: ID8W-CC-F 4000K	TYPE:8W	WEIGHT:
DIM.:	SPEC.:4000K	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	367	367	367	367	367	367	367	367	367	367	367	367						
5	364	362	363	362	364	364	365	366	367	366	365	365						
10	356	353	354	353	355	356	358	360	359	360	357	357						
15	343	339	340	339	342	344	346	348	348	348	346	344						
20	325	322	322	322	324	327	330	332	332	333	330	327						
25	305	301	300	300	303	306	309	313	313	313	310	307						
30	281	277	276	276	280	283	286	289	290	290	287	283						
35	255	251	250	250	254	257	260	264	265	265	261	258						
40	228	223	223	223	226	230	233	237	238	238	235	230						
45	200	196	195	196	199	203	206	210	211	211	207	203						
50	172	169	167	168	171	175	178	181	183	182	180	175						
55	145	142	140	141	144	148	151	154	156	155	152	148						
60	119	116	114	115	117	121	124	127	129	128	126	121						
65	93.1	90.2	88.4	89.3	91.1	95.0	97.6	101	103	102	99.7	95.6						
70	68.4	65.6	63.6	64.7	66.3	69.9	72.3	75.0	77.1	76.4	74.6	70.8						
75	45.1	42.4	38.8	40.7	43.0	46.1	48.2	50.9	52.0	52.1	50.7	47.3						
80	24.4	21.2	17.5	19.4	22.4	25.1	26.7	28.3	28.3	29.2	29.1	26.2						
85	8.01	5.70	3.62	4.54	6.43	8.19	9.46	10.1	9.43	10.5	11.3	9.28						
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.33	0.05	0.00						

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: