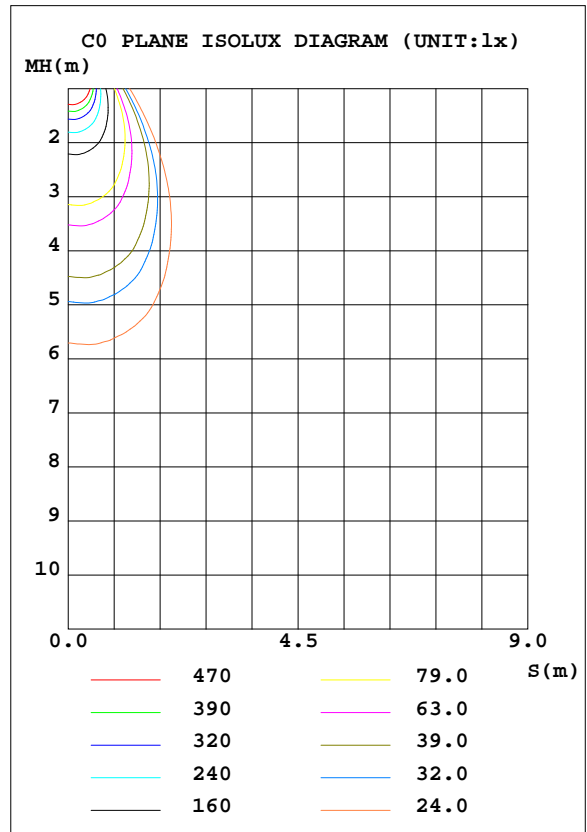
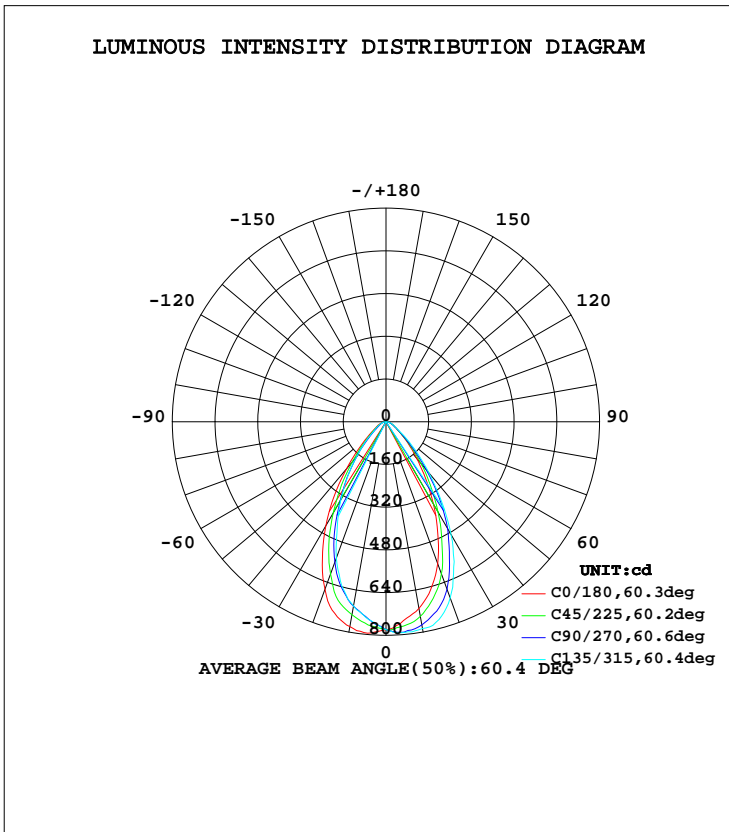


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:240.1V I:0.0470A P:10.80W PF:0.9450 Lamp Flux:887.546x1 lm		
NAME: ID10WCOB-CC	TYPE:10W	WEIGHT:
DIM.:	SPEC.:5700K	SERIAL No.:1
MFR.:	SUR.:0.0405	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 82.18 lm/W			
MODEL	ID10WCOB-CC	I _{max} (cd)	794.7	S/MH(C0/180)	0.98
NOMINAL POWER(W)	10	LOR(%)	100.0	S/MH(C90/270)	0.85
RATED VOLTAGE(V)	240	TOTAL FLUX(lm)	887.55	η UP, DN(C0-180)	0.0, 48.0
NOMINAL FLUX(lm)	887.546	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 52.0
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE(V)	240.1	η down(%)	100.0	CIBSE SHR MAX	0.95



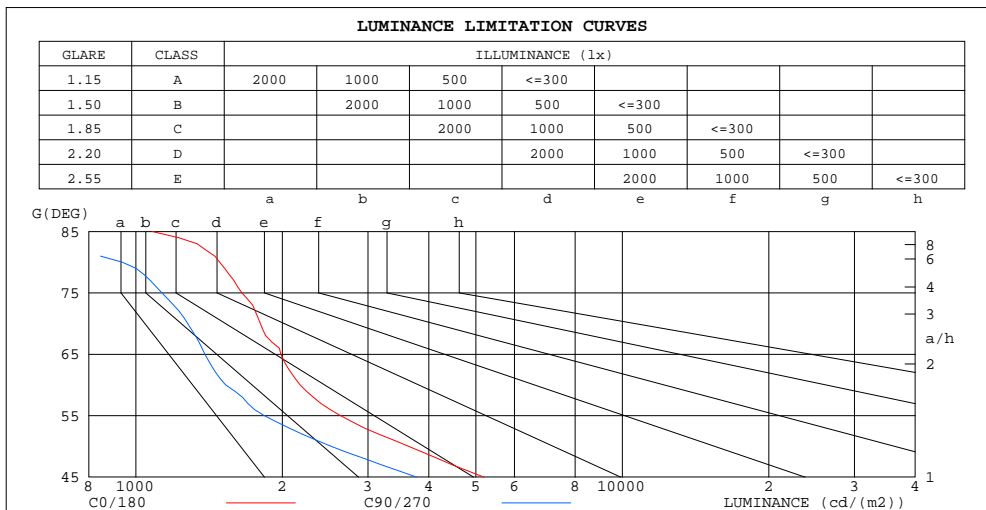
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2021-11-04

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
Humidity:65.0%
Test Distance:10.237m [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	779.1	733.9	701.2	700.7	710.4	740.3	772.9	786.5	0- 10	72.42	72.42	8.16,8.16
20	667.9	607.9	559.6	543.9	566.0	606.5	668.5	702.7	10- 20	193.2	265.7	29.9,29.9
30	451.5	395.7	345.0	338.3	355.0	390.6	461.7	487.3	20- 30	233.2	498.8	56.2,56.2
40	229.2	196.9	171.1	172.5	179.4	204.4	235.7	251.5	30- 40	186.0	684.9	77.2,77.2
50	94.42	79.36	65.76	72.20	79.44	82.75	88.81	104.5	40- 50	104.8	789.7	89,89
60	43.91	38.88	31.01	36.37	39.80	39.77	37.72	42.67	50- 60	50.32	840.0	94.6,94.6
70	24.89	20.65	17.73	18.97	22.37	20.97	20.45	22.89	60- 70	28.92	868.9	97.9,97.9
80	10.42	8.122	6.604	7.668	9.648	8.069	7.332	8.838	70- 80	15.34	884.3	99.6,99.6
90	0.1191	0.1967	0.1126	0.1904	0.1191	0.1897	0.0772	0.2891	80- 90	3.292	887.5	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	1079	230
80	1486	938
75	1653	1132
70	1802	1279
65	1987	1386
60	2176	1530
55	2635	1837
50	3639	2523
45	5194	3779

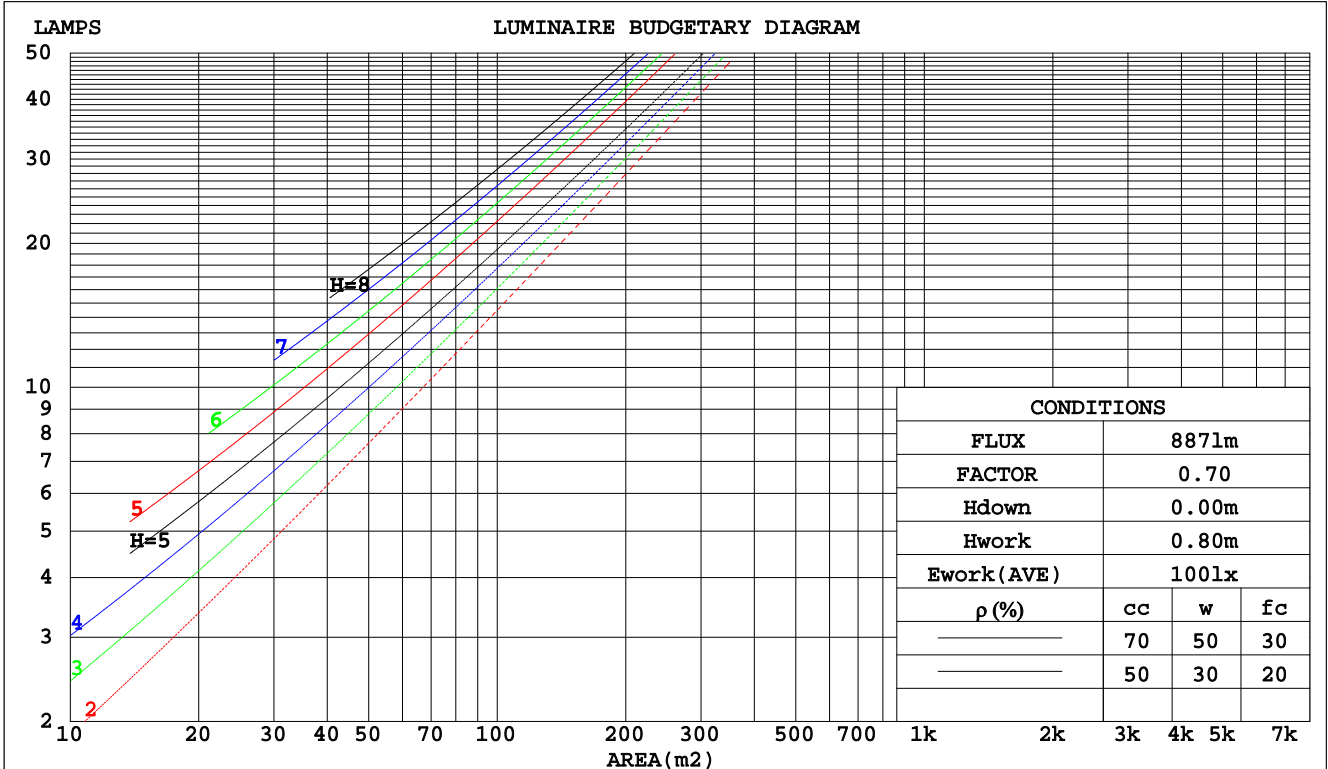
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2021-11-04

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
Humidity:65.0%
Test Distance:10.237m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:240.1V I:0.0470A P:10.80W PF:0.9450 Lamp Flux:887.546x1 lm		
NAME: ID10WCOB-CC	TYPE:10W	WEIGHT:
DIM.:	SPEC.:5700K	SERIAL No.:1
MFR.:	SUR.:0.0405	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	1.00
1.0	1.09	1.06	1.03	1.07	1.04	1.02	1.03	1.00	.98	.99	.97	.95	.95	.94	.93	.91
2.0	.00	.95	.91	.98	.93	.90	.94	.91	.88	.91	.88	.86	.89	.86	.84	.82
3.0	.91	.85	.81	.90	.84	.80	.87	.82	.79	.85	.81	.77	.82	.79	.76	.74
4.0	.84	.77	.73	.83	.77	.72	.81	.75	.71	.78	.74	.70	.76	.73	.69	.68
5.0	.78	.71	.66	.77	.70	.66	.75	.69	.65	.73	.68	.64	.71	.67	.64	.62
6.0	.72	.65	.60	.71	.65	.60	.70	.64	.59	.68	.63	.59	.67	.62	.59	.57
7.0	.67	.60	.55	.66	.60	.55	.65	.59	.55	.64	.58	.55	.62	.58	.54	.53
8.0	.63	.56	.51	.62	.56	.51	.61	.55	.51	.60	.54	.51	.59	.54	.50	.49
9.0	.59	.52	.47	.58	.52	.47	.57	.51	.47	.56	.51	.47	.55	.50	.47	.45
10.0	.55	.49	.44	.55	.48	.44	.54	.48	.44	.53	.48	.44	.52	.47	.44	.42



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2021-11-04

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity: 65.0%
 Test Distance: 10.237m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:240.1V I:0.0470A P:10.80W PF:0.9450 Lamp Flux:887.546x1 lm		
NAME: ID10WCOB-CC	TYPE:10W	WEIGHT:
DIM.:	SPEC.:5700K	SERIAL No.:1
MFR.:	SUR.:0.0405	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	.213	.121	.038	.207	.118	.037	.194	.111	.036	.182	.105	.034	.171	.099	.032	
2.0	.205	.112	.034	.199	.110	.034	.188	.105	.032	.178	.100	.031	.169	.095	.030	
3.0	.194	.103	.031	.189	.101	.030	.179	.097	.030	.171	.094	.029	.163	.090	.028	
4.0	.183	.095	.028	.179	.094	.028	.170	.090	.027	.163	.087	.026	.156	.085	.026	
5.0	.173	.088	.026	.169	.087	.025	.162	.084	.025	.155	.082	.024	.149	.080	.024	
6.0	.164	.082	.023	.160	.081	.023	.154	.079	.023	.148	.077	.023	.142	.075	.022	
7.0	.155	.077	.022	.152	.076	.022	.146	.074	.021	.141	.072	.021	.136	.071	.021	
8.0	.147	.072	.020	.145	.071	.020	.139	.070	.020	.135	.068	.020	.130	.067	.019	
9.0	.140	.068	.019	.138	.067	.019	.133	.066	.019	.129	.065	.018	.125	.063	.018	
10.0	.133	.064	.018	.131	.063	.018	.127	.062	.018	.123	.061	.017	.120	.060	.017	

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	.174	.157	.142	.149	.135	.122	.102	.093	.085	.058	.054	.049	.019	.017	.016	
2.0	.161	.132	.109	.138	.114	.094	.094	.079	.065	.054	.046	.038	.017	.015	.013	
3.0	.150	.114	.085	.128	.098	.074	.088	.068	.052	.051	.040	.030	.016	.013	.010	
4.0	.141	.100	.068	.121	.086	.059	.083	.060	.042	.048	.035	.025	.015	.011	.008	
5.0	.132	.088	.056	.114	.076	.048	.078	.053	.034	.045	.031	.020	.015	.010	.007	
6.0	.125	.079	.046	.108	.069	.040	.074	.048	.029	.043	.028	.017	.014	.009	.006	
7.0	.119	.072	.039	.102	.062	.034	.071	.044	.024	.041	.026	.014	.013	.008	.005	
8.0	.113	.066	.034	.097	.057	.029	.067	.040	.021	.039	.024	.012	.013	.008	.004	
9.0	.108	.061	.029	.093	.053	.025	.064	.037	.018	.037	.022	.011	.012	.007	.004	
10.0	.103	.057	.026	.089	.049	.022	.062	.035	.016	.036	.020	.010	.012	.007	.003	

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2021-11-04

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:10.237m [K=1.0000]
 Remarks:

Uncorrected UGR Table

Test:U:240.1V I:0.0470A P:10.80W PF:0.9450 Lamp Flux:887.546x1 lm										
NAME: ID10WCOB-CC					TYPE:10W			WEIGHT:		
DIM.:					SPEC.:5700K			SERIAL No.:1		
MFR.:					SUR.:0.0405			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	14.8	15.9	15.0	16.1	16.3	13.5	14.7	13.8	14.8	15.0
3H	15.3	16.3	15.6	16.5	16.7	13.9	15.0	14.2	15.2	15.4
4H	15.5	16.5	15.8	16.7	17.0	14.1	15.1	14.4	15.3	15.5
6H	15.7	16.6	16.0	16.9	17.1	14.2	15.1	14.5	15.4	15.6
8H	15.8	16.6	16.1	16.9	17.2	14.2	15.1	14.5	15.4	15.6
12H	15.8	16.6	16.1	16.9	17.2	14.2	15.0	14.5	15.3	15.6
4H 2H	14.8	15.8	15.1	16.0	16.3	13.7	14.7	14.0	14.9	15.1
3H	15.5	16.3	15.8	16.6	16.9	14.3	15.1	14.6	15.4	15.7
4H	15.8	16.6	16.2	16.9	17.2	14.6	15.3	14.9	15.6	15.9
6H	16.1	16.8	16.5	17.1	17.5	14.8	15.4	15.1	15.8	16.1
8H	16.2	16.9	16.6	17.2	17.6	14.8	15.4	15.2	15.8	16.2
12H	16.3	16.8	16.7	17.2	17.6	14.8	15.3	15.2	15.7	16.1
8H 4H	15.9	16.5	16.3	16.9	17.2	14.7	15.3	15.1	15.7	16.0
6H	16.3	16.8	16.7	17.2	17.6	15.0	15.5	15.4	15.9	16.3
8H	16.4	16.9	16.9	17.3	17.7	15.0	15.5	15.5	15.9	16.4
12H	16.5	16.9	16.9	17.3	17.8	15.0	15.4	15.5	15.9	16.3
12H 4H	15.8	16.4	16.3	16.8	17.2	14.7	15.2	15.1	15.6	16.0
6H	16.2	16.7	16.7	17.1	17.6	15.0	15.4	15.4	15.9	16.3
8H	16.4	16.8	16.9	17.2	17.7	15.1	15.5	15.5	15.9	16.4
Variations with the observer position at spacings:										
S = 1.0H	+ 1.1 / - 1.3					+ 1.0 / - 1.4				
1.5H	+ 1.9 / - 1.2					+ 1.5 / - 1.3				
2.0H	+ 2.2 / - 1.0					+ 1.8 / - 1.3				

CIE Pub.117 Corrected 887.5 lm Total Lamp Luminous Flux. (8log(F/F0) = -0.4)

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2021-11-04

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:10.237m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:240.1V I:0.0470A P:10.80W PF:0.9450 Lamp Flux:887.546x1 lm		
NAME: ID10WCOB-CC	TYPE:10W	WEIGHT:
DIM.:	SPEC.:5700K	SERIAL No.:1
MFR.:	SUR.:0.0405	PROTECTION ANGLE:

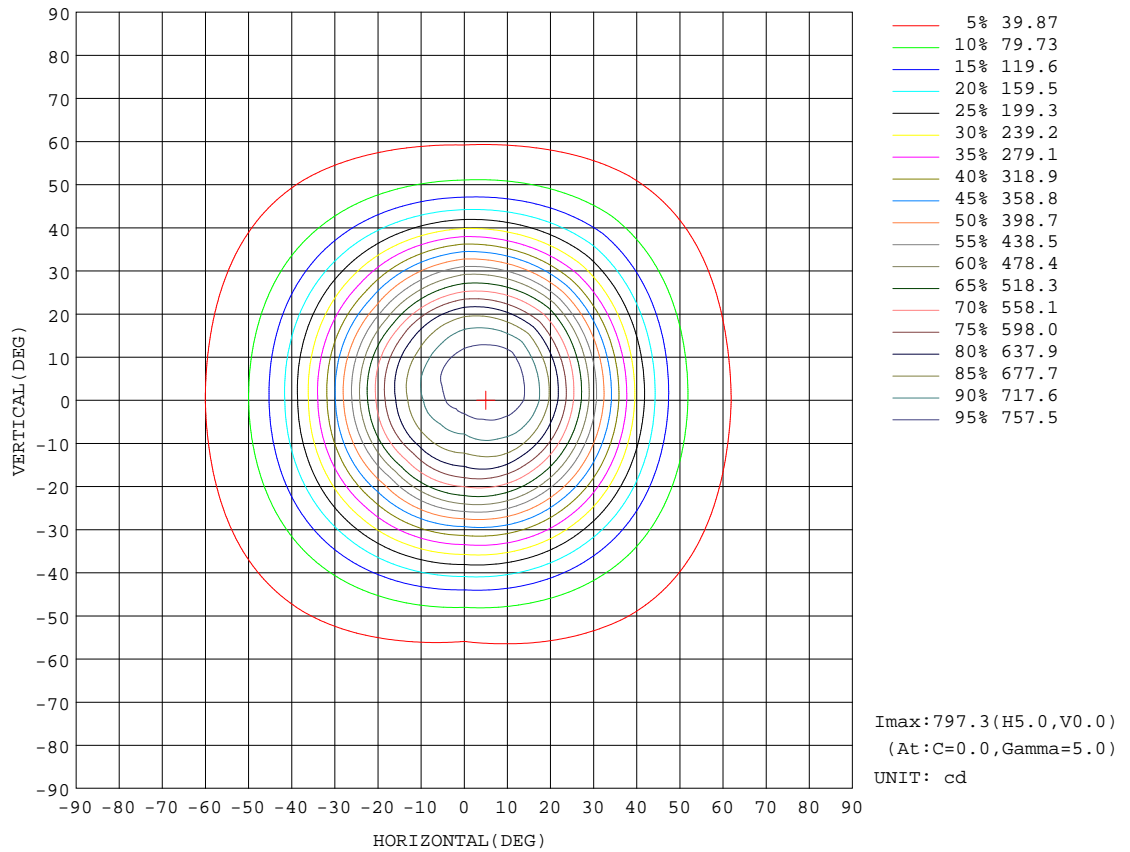
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	77	69	64	77	69	64	76	69	64	59
0.80	86	78	73	85	78	73	84	77	73	68
1.00	92	85	80	91	84	80	89	85	79	74
1.25	97	90	86	96	90	85	94	88	85	79
1.50	101	94	90	99	94	89	97	92	88	83
2.00	105	99	95	103	98	94	100	96	93	87
2.50	107	102	98	105	101	97	102	98	95	89
3.00	109	105	101	107	103	100	104	100	98	91
4.00	112	108	105	109	106	104	106	103	101	93
5.00	113	110	108	111	108	106	107	105	103	95
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2021-11-04

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:10.237m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:240.1V I:0.0470A P:10.80W PF:0.9450 Lamp Flux:887.546x1 lm		
NAME: ID10WCOB-CC	TYPE:10W	WEIGHT:
DIM.:	SPEC.:5700K	SERIAL No.:1
MFR.:	SUR.:0.0405	PROTECTION ANGLE:

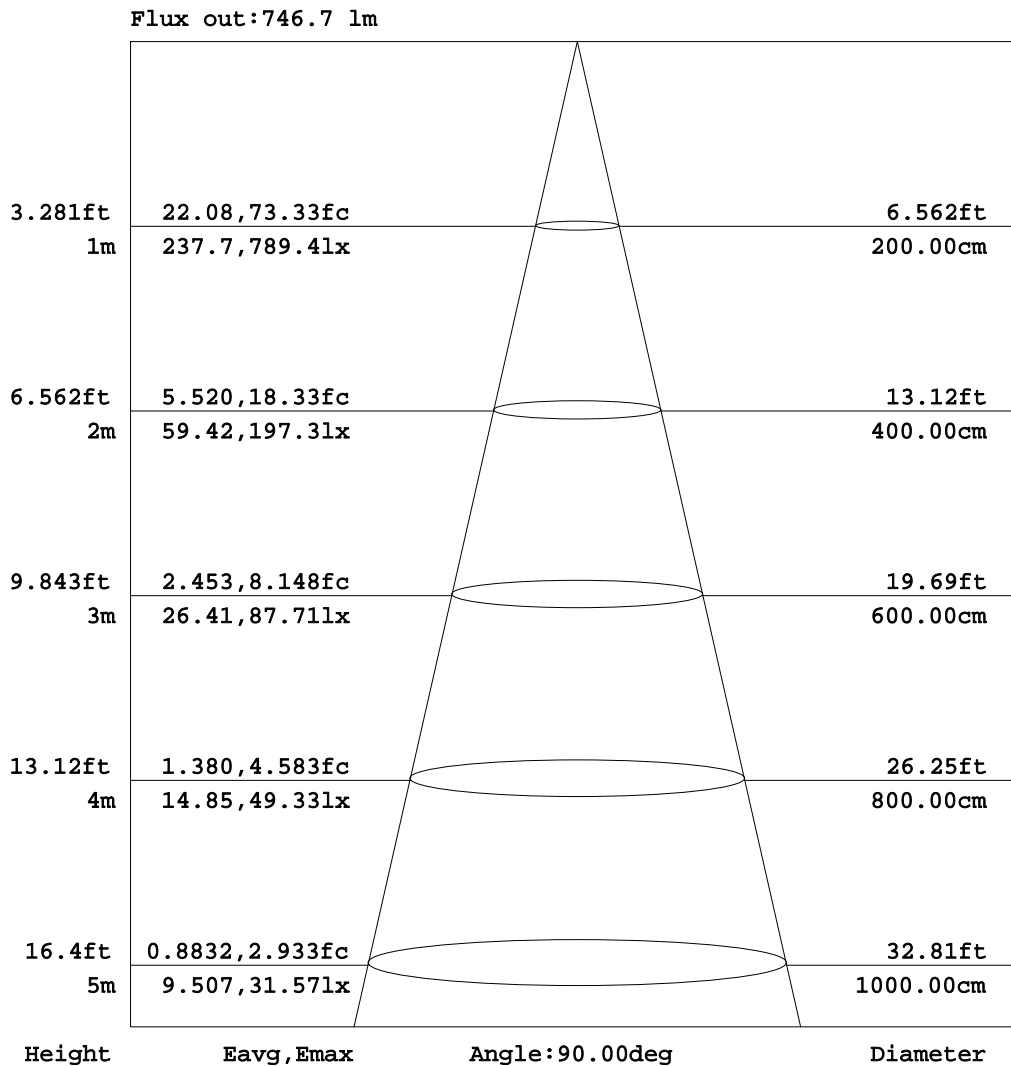


C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2021-11-04

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity: 65.0%
 Test Distance: 10.237m [K=1.0000]
 Remarks:

AAI Figure

Test:U:240.1V I:0.0470A P:10.80W PF:0.9450 Lamp Flux:887.546x1 lm		
NAME: ID10WCOB-CC	TYPE:10W	WEIGHT:
DIM.:	SPEC.:5700K	SERIAL No.:1
MFR.:	SUR.:0.0405	PROTECTION ANGLE:



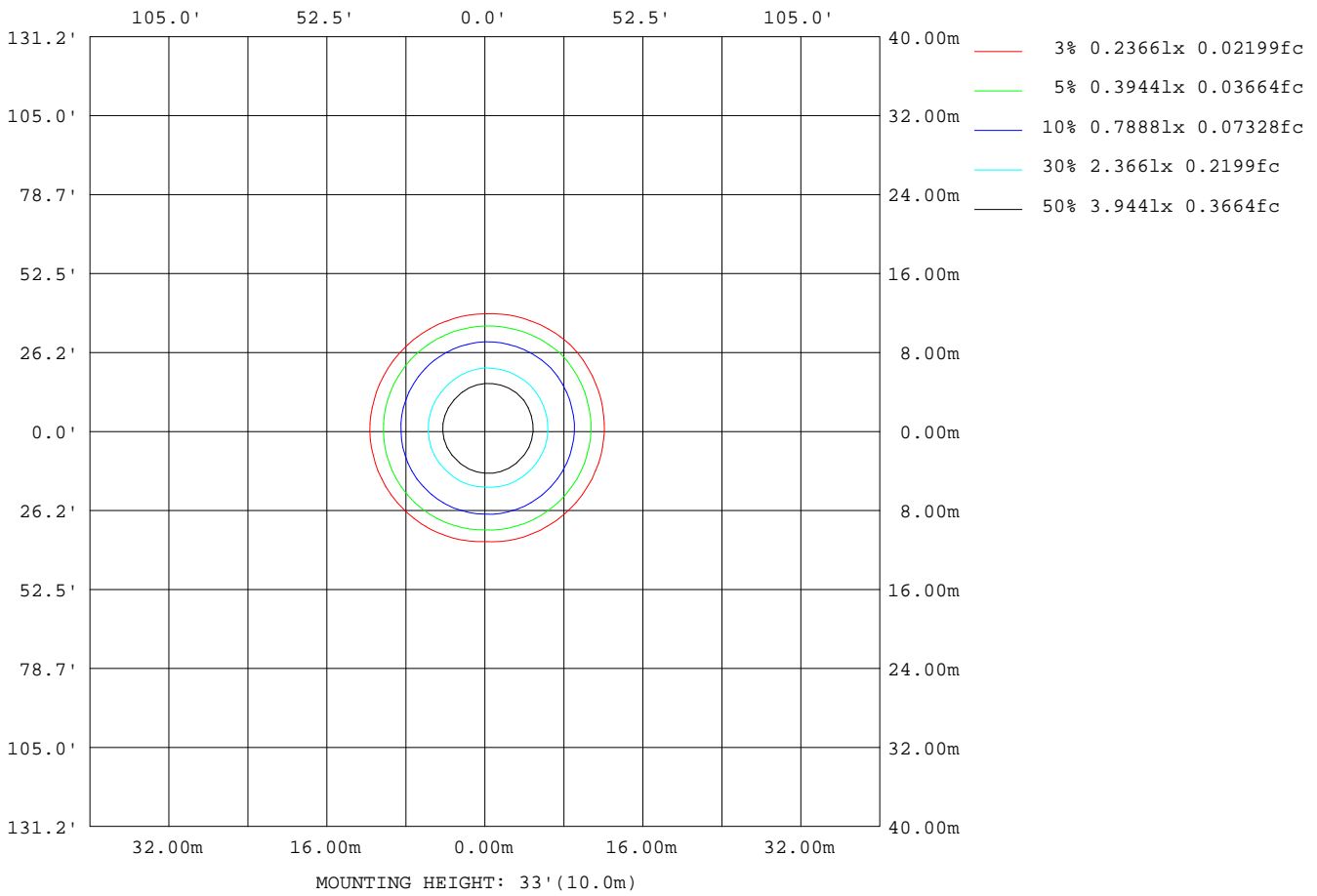
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2021-11-04

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:10.237m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

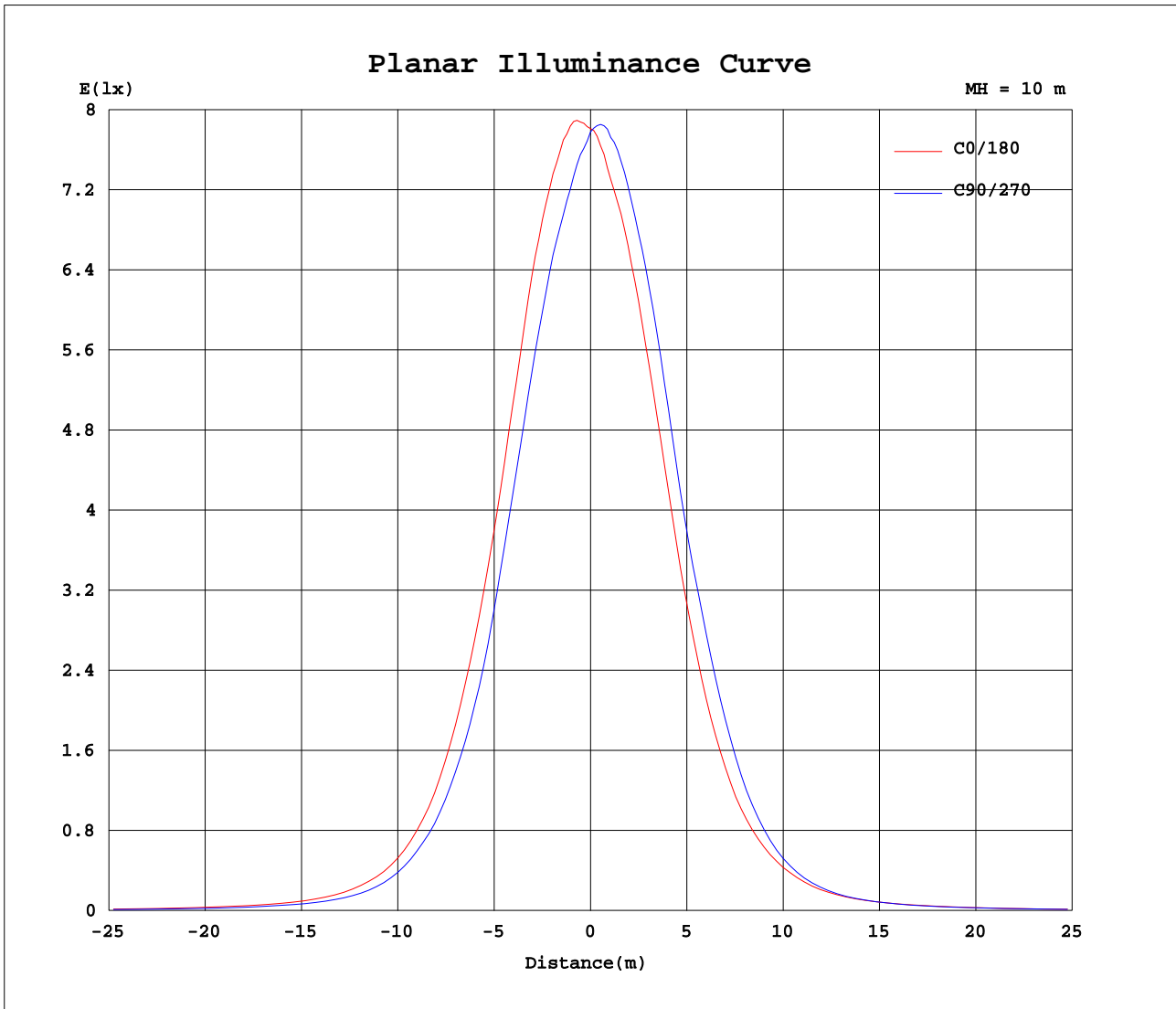
Test:U:240.1V I:0.0470A P:10.80W PF:0.9450 Lamp Flux:887.546x1 lm		
NAME: ID10WCOB-CC	TYPE:10W	WEIGHT:
DIM.:	SPEC.:5700K	SERIAL No.:1
MFR.:	SUR.:0.0405	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
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 Test Date:2021-11-04

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:10.237m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2021-11-04

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity: 65.0%
 Test Distance: 10.237m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:240.1V I:0.0470A P:10.80W PF:0.9450 Lamp Flux:887.546x1 lm		
NAME: ID10WCOB-CC	TYPE:10W	WEIGHT:
DIM.:	SPEC.:5700K	SERIAL No.:1
MFR.:	SUR.:0.0405	PROTECTION ANGLE:

Table--1

UNIT: cd

C(DEG) \ γ (DEG)	0	45	90	135	180	225	270	315											
0	779	779	779	779	779	779	779	779											
5	795	764	743	744	748	768	791	792											
10	779	734	701	701	710	740	773	786											
15	743	693	644	638	650	685	734	767											
20	668	608	560	544	566	607	668	703											
25	564	506	458	432	459	496	563	600											
30	452	396	345	338	355	391	462	487											
35	337	292	253	250	259	290	347	361											
40	229	197	171	172	179	204	236	251											
45	148	126	108	116	121	133	148	165											
50	94.4	79.4	65.8	72.2	79.4	82.7	88.8	105											
55	61.0	53.4	42.7	49.7	53.9	54.7	55.2	62.0											
60	43.9	38.9	31.0	36.4	39.8	39.8	37.7	42.7											
65	33.9	28.7	23.8	26.5	30.0	29.2	28.5	31.8											
70	24.9	20.6	17.7	19.0	22.4	21.0	20.5	22.9											
75	17.3	14.4	11.9	13.1	15.8	14.4	13.3	15.4											
80	10.4	8.12	6.60	7.67	9.65	8.07	7.33	8.84											
85	3.80	2.04	0.81	2.04	3.43	1.98	0.97	2.62											
90	0.12	0.20	0.11	0.19	0.12	0.19	0.08	0.29											

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2021-11-04
 γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.276
 Humidity:65.0%
 Test Distance:10.237m [K=1.0000]
 Remarks: