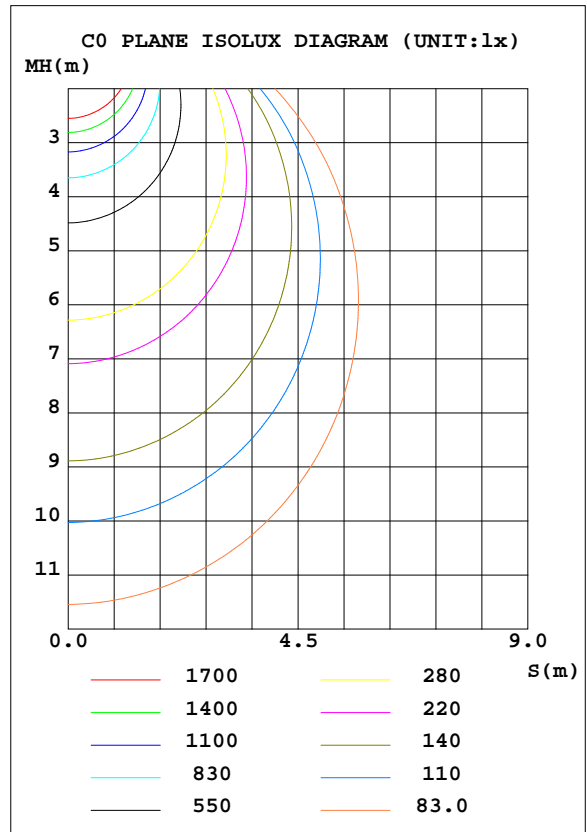
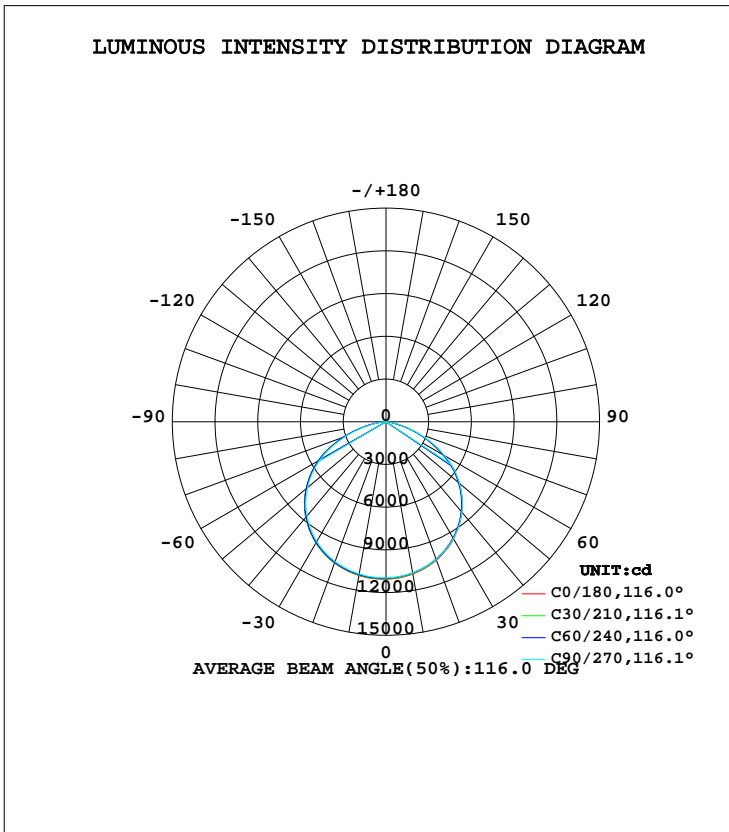


LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: F6045-200W	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:0.302*0.302	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 158.41 lm/W			
MODEL	F6045-200W	I _{max} (cd)	11063	S/MH(C0/180)	1.28
NOMINAL POWER(W)	200	LOR(%)	100.0	S/MH(C90/270)	1.28
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	32274	η UP, DN(C0-180)	0.9, 47.3
NOMINAL FLUX(lm)	32274.3	CIE CLASS	DIRECT	η UP, DN(C180-360)	1.0, 50.8
LAMPS INSIDE	1	η up(%)	1.9	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	230	η down(%)	98.1	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-04-18

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
 Humidity:65.0%
 Test Distance:8.000m [K=0.7437]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	lum, lamp
10	1086	1080	1077	1078	1097	1092	1085	1079	0- 10	1041	1041	3.23,3.23
20	1035	1029	1028	1032	1057	1053	1044	1035	10- 20	3008	4049	12.5,12.5
30	949.8	943.2	945.7	954.1	983.6	980.8	970.1	957.1	20- 30	4627	8676	26.9,26.9
40	830.2	823.6	828.9	841.5	876.4	874.7	862.3	845.6	30- 40	5681	14357	44.5,44.5
50	672.9	666.7	674.0	692.2	731.7	731.5	718.1	696.6	40- 50	5990	20347	63,63
60	471.8	462.8	475.7	499.9	547.5	549.3	535.1	509.1	50- 60	5419	25766	79.8,79.8
70	238.6	233.3	246.8	270.8	315.7	318.9	301.5	277.2	60- 70	3868	29634	91.8,91.8
80	46.42	43.45	50.96	65.91	97.68	100.6	88.61	71.89	70- 80	1750	31384	97.2,97.2
90	5.636	5.654	5.607	5.523	7.643	7.747	7.519	7.421	80- 90	274.2	31658	98.1,98.1
100	6.515	6.525	6.452	6.329	8.313	8.230	8.258	8.363	90-100	75.33	31734	98.3,98.3
110	7.598	7.634	7.575	7.403	9.434	9.334	9.363	9.473	100-110	83.65	31817	98.6,98.6
120	8.703	8.735	8.678	8.502	10.57	10.47	10.48	10.58	110-120	89.55	31907	98.9,98.9
130	9.793	9.829	9.771	9.591	11.67	11.56	11.56	11.64	120-130	90.76	31997	99.1,99.1
140	10.89	10.95	10.89	10.70	12.68	12.56	12.54	12.61	130-140	86.57	32084	99.4,99.4
150	11.95	11.97	11.91	11.71	13.66	13.52	13.49	13.53	140-150	76.66	32161	99.6,99.6
160	13.12	13.01	12.92	12.74	14.40	14.25	14.18	14.19	150-160	60.72	32221	99.8,99.8
170	13.96	13.88	13.77	13.65	14.58	14.44	14.35	14.32	160-170	39.37	32261	100,100
180	14.36	14.28	14.16	14.07	14.40	14.28	14.15	14.07	170-180	13.47	32274	100,100
DEG	LUMINOUS INTENSITY:×10cd									UNIT:lm		

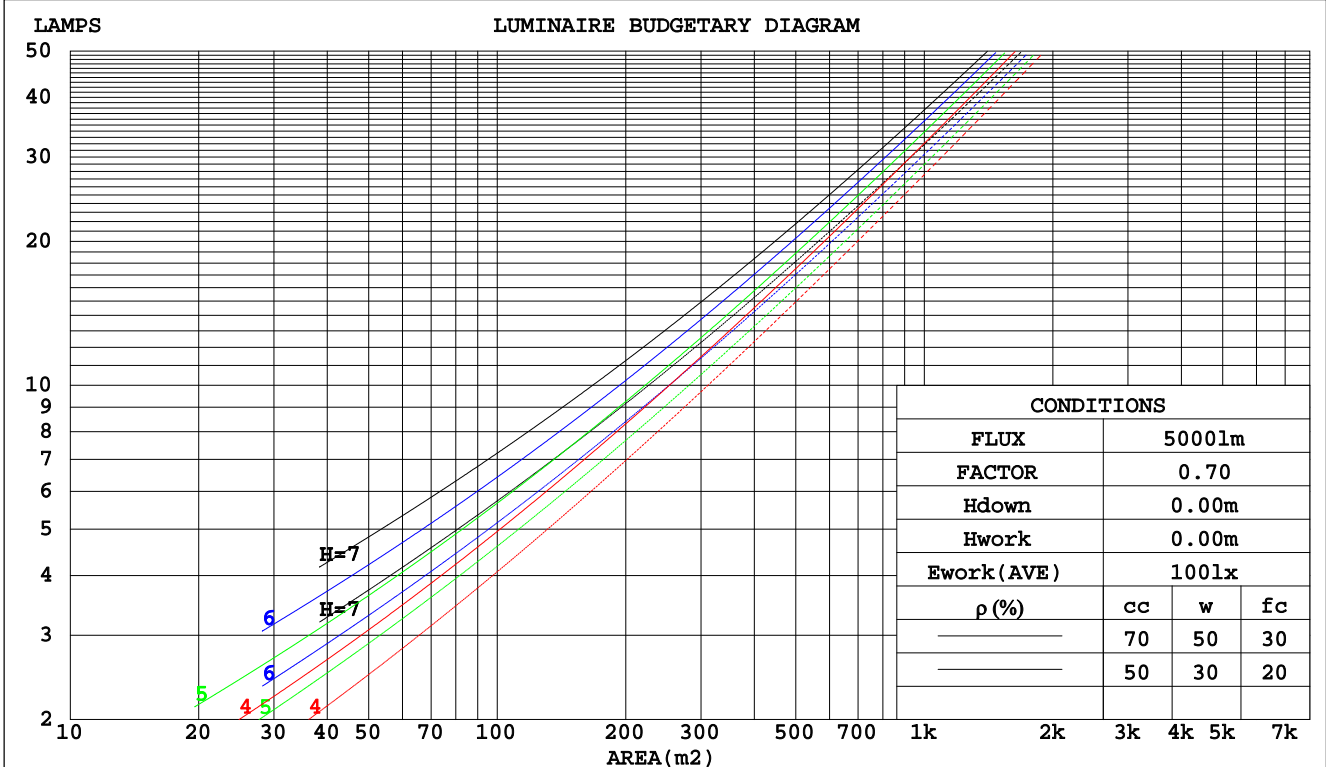
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-04-18

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
 Humidity:65.0%
 Test Distance:8.000m [K=0.7437]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME: F6045-200W	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:0.302*0.302	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																0
RCR	RCR:Room Cavity Ratio															
	Coefficients of Utilization(CU)															
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.10	1.10	1.10	1.05	1.05	1.05	1.00	1.00	1.00	.98
1.0	1.04	1.00	.97	1.02	.98	.95	.97	.94	.92	.93	.91	.88	.89	.87	.85	.83
2.0	.91	.85	.79	.89	.83	.78	.85	.80	.76	.82	.77	.74	.78	.75	.72	.70
3.0	.80	.72	.66	.78	.71	.65	.75	.69	.64	.72	.67	.62	.69	.65	.61	.59
4.0	.71	.62	.56	.69	.61	.55	.67	.60	.54	.64	.58	.53	.62	.57	.52	.50
5.0	.63	.54	.48	.62	.54	.47	.60	.52	.47	.58	.51	.46	.55	.50	.45	.43
6.0	.57	.48	.42	.56	.47	.41	.54	.46	.41	.52	.45	.40	.50	.44	.40	.38
7.0	.51	.43	.37	.51	.42	.36	.49	.41	.36	.47	.41	.36	.46	.40	.35	.33
8.0	.47	.38	.33	.46	.38	.32	.45	.37	.32	.43	.37	.32	.42	.36	.32	.30
9.0	.43	.35	.29	.42	.34	.29	.41	.34	.29	.40	.33	.29	.39	.33	.28	.27
10.0	.40	.32	.26	.39	.31	.26	.38	.31	.26	.37	.30	.26	.36	.30	.26	.24



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-04-18

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
 Humidity:65.0%
 Test Distance:8.000m [K=0.7437]
 Remarks:

WEC AND CCEC

NAME: F6045-200W	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:0.302*0.302	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	.292	.166	.053	.285	.162	.052	.270	.155	.050	.257	.148	.048	.245	.142	.046	
2.0	.281	.154	.047	.274	.151	.046	.261	.145	.045	.250	.140	.044	.239	.135	.043	
3.0	.263	.140	.042	.257	.137	.041	.245	.133	.040	.235	.129	.040	.225	.125	.039	
4.0	.244	.127	.037	.239	.125	.037	.229	.121	.036	.219	.118	.036	.211	.115	.035	
5.0	.227	.115	.033	.222	.114	.033	.213	.111	.033	.205	.108	.032	.197	.105	.032	
6.0	.211	.106	.030	.207	.104	.030	.199	.102	.030	.191	.099	.029	.184	.097	.029	
7.0	.197	.097	.028	.193	.096	.027	.186	.094	.027	.179	.092	.027	.173	.090	.026	
8.0	.184	.090	.025	.181	.089	.025	.174	.087	.025	.168	.085	.025	.162	.083	.024	
9.0	.173	.084	.023	.170	.083	.023	.164	.081	.023	.158	.079	.023	.153	.078	.022	
10.0	.163	.078	.022	.160	.077	.022	.154	.076	.021	.150	.074	.021	.145	.073	.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	.205	.205	.205	.175	.175	.175	.120	.120	.120	.069	.069	.069	.022	.022	.022	
1.0	.194	.171	.150	.166	.147	.129	.113	.101	.090	.065	.058	.052	.021	.019	.017	
2.0	.186	.147	.114	.159	.126	.099	.109	.087	.069	.063	.051	.040	.020	.016	.013	
3.0	.178	.129	.090	.153	.111	.078	.105	.077	.055	.060	.045	.032	.019	.015	.011	
4.0	.170	.116	.074	.146	.100	.064	.101	.070	.045	.058	.041	.027	.019	.013	.009	
5.0	.163	.105	.063	.140	.091	.055	.097	.064	.039	.056	.037	.023	.018	.012	.008	
6.0	.156	.097	.055	.134	.084	.047	.093	.059	.034	.054	.035	.020	.017	.011	.007	
7.0	.150	.090	.049	.129	.078	.042	.089	.055	.030	.052	.032	.018	.017	.011	.006	
8.0	.143	.084	.044	.123	.073	.038	.085	.051	.027	.050	.030	.016	.016	.010	.005	
9.0	.137	.080	.040	.118	.069	.035	.082	.049	.025	.048	.029	.015	.015	.009	.005	
10.0	.132	.075	.038	.114	.065	.033	.079	.046	.023	.046	.027	.014	.015	.009	.005	

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-04-18

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
 Humidity:65.0%
 Test Distance:8.000m [K=0.7437]
 Remarks:

Uncorrected UGR Table

NAME: F6045-200W					TYPE:					WEIGHT:				
DIM.:					SPEC.:					SERIAL No.:				
MFR.:					SUR.:0.302*0.302					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	29.9	31.4	30.2	31.6	31.9	29.9	31.4	30.2	31.6	31.8				
3H	31.0	32.3	31.3	32.6	32.9	31.0	32.4	31.3	32.6	32.9				
4H	31.2	32.5	31.6	32.8	33.1	31.3	32.6	31.6	32.9	33.2				
6H	31.3	32.5	31.6	32.8	33.1	31.3	32.5	31.7	32.9	33.2				
8H	31.2	32.4	31.6	32.7	33.0	31.3	32.5	31.7	32.8	33.1				
12H	31.2	32.3	31.6	32.6	33.0	31.3	32.4	31.6	32.7	33.1				
4H 2H	30.4	31.7	30.7	31.9	32.2	30.4	31.7	30.7	31.9	32.2				
3H	31.6	32.7	32.0	33.0	33.4	31.6	32.7	32.0	33.0	33.4				
4H	31.9	32.9	32.3	33.3	33.6	31.9	33.0	32.3	33.3	33.7				
6H	32.0	32.9	32.4	33.3	33.7	32.0	32.9	32.5	33.3	33.7				
8H	32.0	32.8	32.4	33.2	33.6	32.0	32.9	32.5	33.3	33.7				
12H	31.9	32.7	32.4	33.1	33.5	32.0	32.7	32.4	33.2	33.6				
8H 4H	31.9	32.8	32.4	33.2	33.6	32.0	32.8	32.4	33.2	33.6				
6H	32.1	32.8	32.5	33.2	33.7	32.1	32.8	32.6	33.3	33.7				
8H	32.1	32.7	32.6	33.1	33.6	32.1	32.7	32.6	33.2	33.7				
12H	32.0	32.6	32.5	33.0	33.6	32.1	32.6	32.6	33.1	33.6				
12H 4H	31.9	32.7	32.4	33.1	33.5	31.9	32.7	32.4	33.1	33.6				
6H	32.0	32.7	32.5	33.1	33.6	32.1	32.7	32.6	33.2	33.7				
8H	32.0	32.6	32.6	33.0	33.6	32.1	32.6	32.6	33.1	33.6				
Variations with the observer position at spacings:														
S = 1.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.3								
1.5H	+ 0.3 / - 0.5					+ 0.3 / - 0.4								
2.0H	+ 0.4 / - 0.4					+ 0.4 / - 0.4								

CIE Pub.117 Corrected 32274 lm Total Lamp Luminous Flux.(8log(F/F0) = 12.1)

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-04-18

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
 Humidity:65.0%
 Test Distance:8.000m [K=0.7437]
 Remarks:

UTILIZATION FACTORS TABLE

NAME: F6045-200W	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:0.302*0.302	PROTECTION ANGLE:

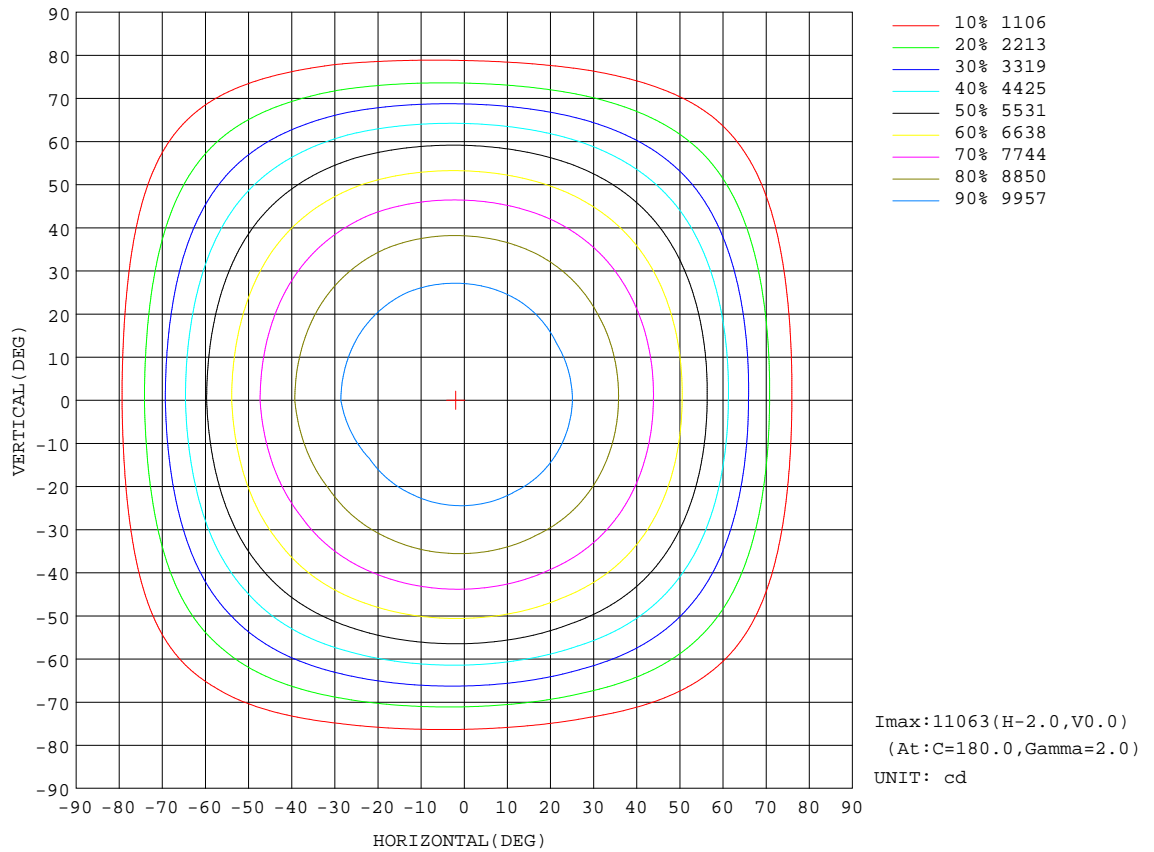
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	57	46	39	56	45	38	55	45	38	32
0.80	67	56	49	66	55	48	64	54	48	41
1.00	76	65	58	75	64	58	72	66	57	50
1.25	83	73	66	82	72	65	79	71	65	57
1.50	88	79	72	87	78	71	83	76	70	62
2.00	95	87	81	93	86	80	90	83	78	70
2.50	99	92	86	97	90	85	93	87	83	74
3.00	102	96	91	100	94	89	96	91	87	78
4.00	106	101	96	104	99	95	99	95	92	83
5.00	109	104	100	106	102	98	101	98	95	86
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:2019-04-18

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
 Humidity:65.0%
 Test Distance:8.000m [K=0.7437]
 Remarks:

ISOCANDELA DIAGRAM

NAME: F6045-200W	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:0.302*0.302	PROTECTION ANGLE:

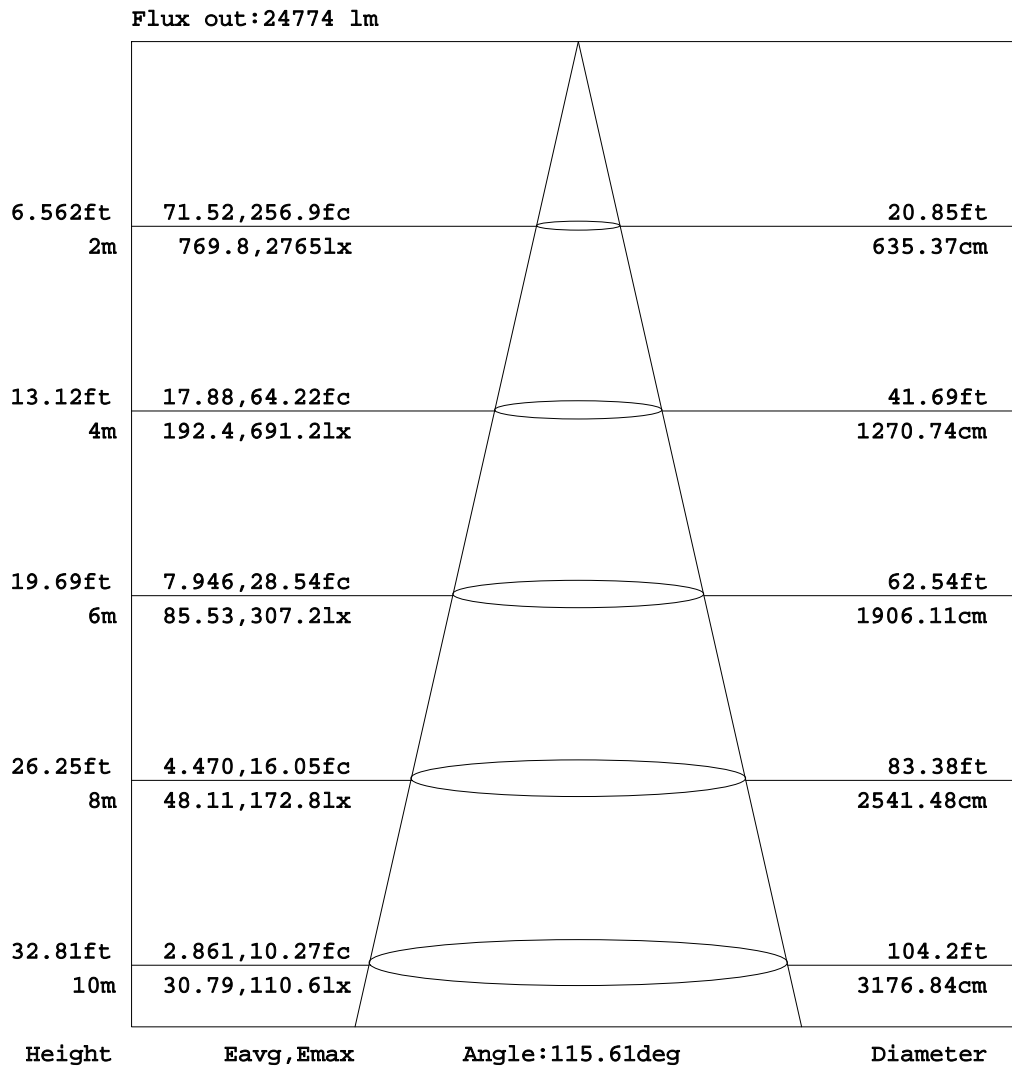


C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2019-04-18

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.267
 Humidity: 65.0%
 Test Distance: 8.000m [K=0.7437]
 Remarks:

AAI Figure

NAME: F6045-200W	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:0.302*0.302	PROTECTION ANGLE:



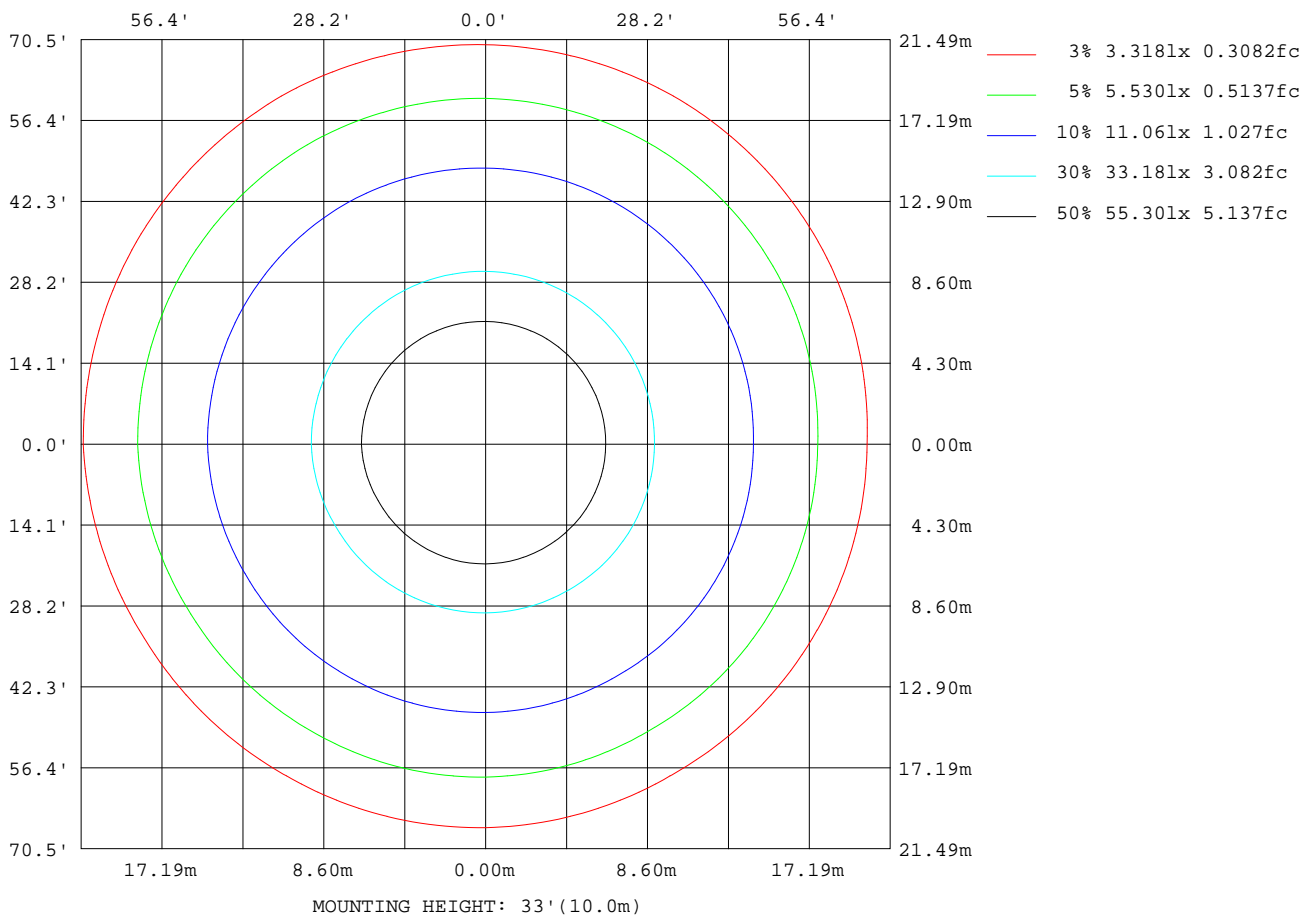
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-04-18

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
 Humidity:65.0%
 Test Distance:8.000m [K=0.7437]
 Remarks:

ISOLUX DIAGRAM

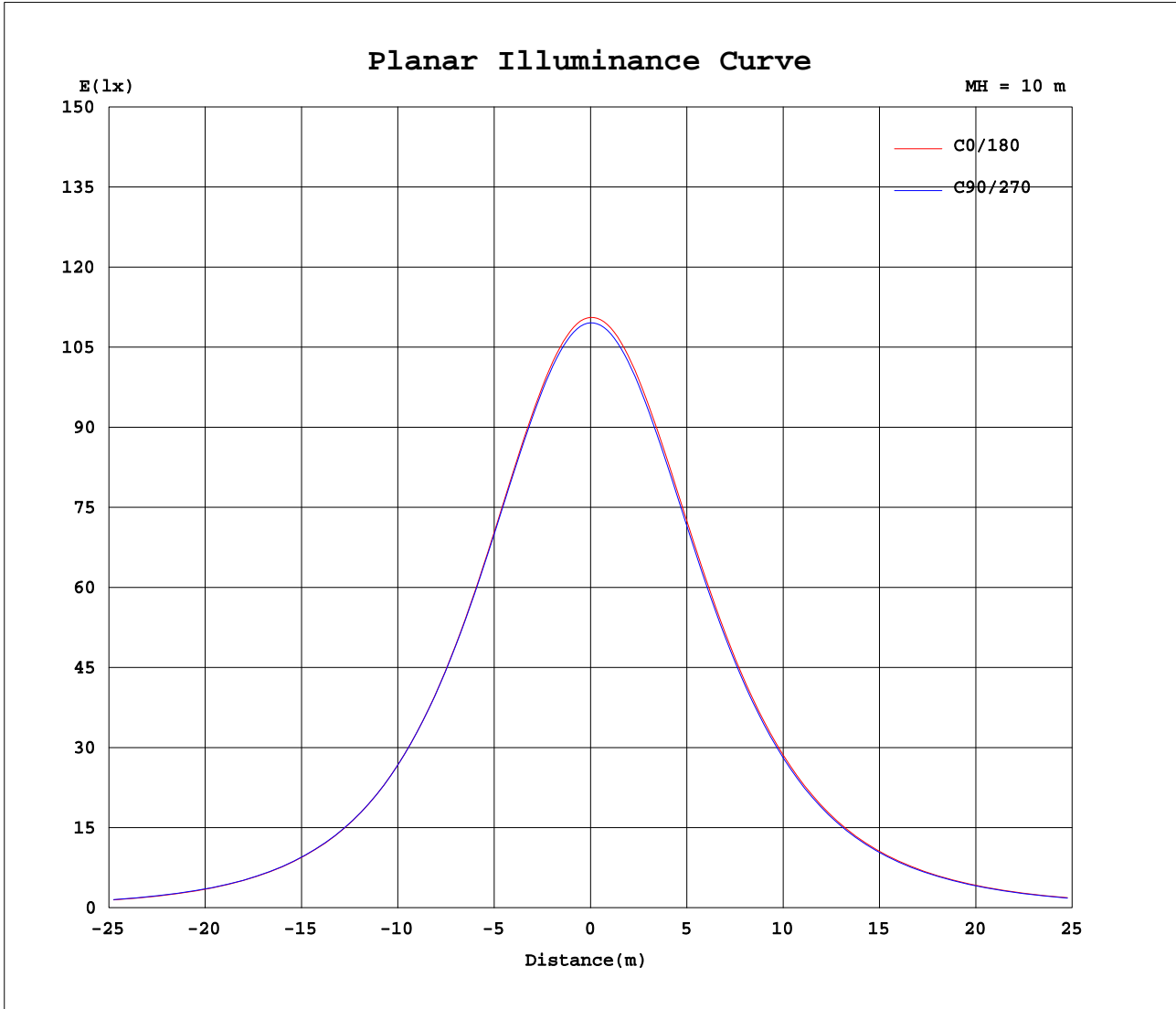
NAME: F6045-200W	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:0.302*0.302	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 30.0DEG
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γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
 Humidity:65.0%
 Test Distance:8.000m [K=0.7437]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2019-04-18

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.267
 Humidity: 65.0%
 Test Distance: 8.000m [K=0.7437]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: F6045-200W	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:0.302*0.302	PROTECTION ANGLE:

Table--1

UNIT: x10cd

C(DEG) γ (DEG)	0	30	60	90	120	150	180	210	240	270	300	330							
0	1106	1102	1099	1096	1094	1092	1106	1102	1099	1096	1094	1092							
5	1100	1096	1092	1091	1089	1089	1105	1102	1098	1094	1091	1088							
10	1086	1082	1078	1077	1077	1079	1097	1094	1090	1085	1081	1077							
15	1064	1060	1056	1057	1057	1060	1081	1078	1074	1068	1064	1058							
20	1035	1031	1027	1028	1030	1035	1057	1055	1051	1044	1039	1031							
25	996	992	988	991	994	1001	1024	1023	1020	1012	1005	995							
30	950	945	941	946	950	958	984	982	979	970	962	952							
35	894	890	886	892	897	907	934	934	931	921	912	900							
40	830	825	822	829	836	847	876	876	873	862	852	839							
45	757	752	748	756	765	778	809	809	807	795	784	768							
50	673	669	664	674	684	700	732	732	731	718	705	688							
55	579	576	571	583	593	612	644	646	645	631	617	599							
60	472	465	460	476	488	511	547	550	549	535	520	498							
65	353	348	346	361	374	395	434	439	439	422	406	382							
70	239	234	233	247	260	281	316	319	318	301	287	267							
75	128	125	124	137	147	166	201	205	204	188	174	154							
80	46.4	43.6	43.3	51.0	59.7	72.2	97.7	100	101	88.6	78.9	64.9							
85	8.63	8.00	7.67	9.48	11.8	16.6	28.8	30.5	30.7	25.1	20.6	15.3							
90	5.64	5.66	5.65	5.61	5.56	5.49	7.64	7.75	7.75	7.52	7.40	7.45							
95	6.04	6.06	6.05	5.99	5.93	5.85	7.80	7.74	7.72	7.76	7.81	7.89							
100	6.51	6.53	6.52	6.45	6.38	6.28	8.31	8.24	8.22	8.26	8.32	8.41							
105	7.04	7.11	7.04	6.99	6.89	6.78	8.87	8.79	8.76	8.80	8.87	8.96							
110	7.60	7.67	7.59	7.58	7.43	7.38	9.43	9.35	9.32	9.36	9.43	9.52							
115	8.16	8.23	8.15	8.13	7.98	7.93	10.0	9.91	9.89	9.92	9.99	10.1							
120	8.70	8.78	8.69	8.68	8.52	8.48	10.6	10.5	10.5	10.5	10.5	10.6							
125	9.24	9.34	9.22	9.22	9.06	9.02	11.1	11.0	11.0	11.0	11.1	11.1							
130	9.79	9.89	9.77	9.77	9.60	9.58	11.7	11.6	11.5	11.6	11.6	11.7							
135	10.4	10.5	10.3	10.3	10.2	10.1	12.2	12.1	12.0	12.0	12.1	12.1							
140	10.9	11.0	10.9	10.9	10.7	10.7	12.7	12.6	12.5	12.5	12.6	12.6							
145	11.4	11.5	11.4	11.4	11.2	11.2	13.2	13.1	13.0	13.0	13.1	13.1							
150	12.0	12.1	11.9	11.9	11.7	11.7	13.7	13.5	13.5	13.5	13.5	13.5							
155	12.5	12.6	12.4	12.4	12.2	12.2	14.1	13.9	13.9	13.9	13.9	13.9							
160	13.1	13.1	13.0	12.9	12.7	12.8	14.4	14.3	14.2	14.2	14.2	14.2							
165	13.6	13.5	13.5	13.4	13.3	13.2	14.7	14.5	14.5	14.4	14.4	14.4							
170	14.0	13.9	13.8	13.8	13.7	13.6	14.6	14.5	14.4	14.4	14.3	14.3							
175	14.1	14.1	14.0	14.0	13.9	13.8	14.4	14.3	14.3	14.2	14.2	14.1							
180	14.4	14.3	14.2	14.2	14.1	14.0	14.4	14.3	14.3	14.2	14.1	14.0							

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-04-18

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
 Humidity:65.0%
 Test Distance:8.000m [K=0.7437]
 Remarks: