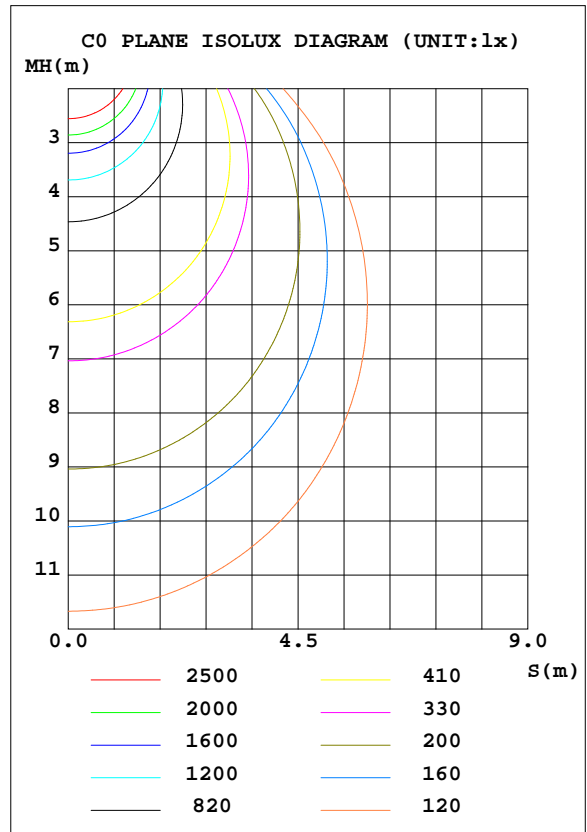
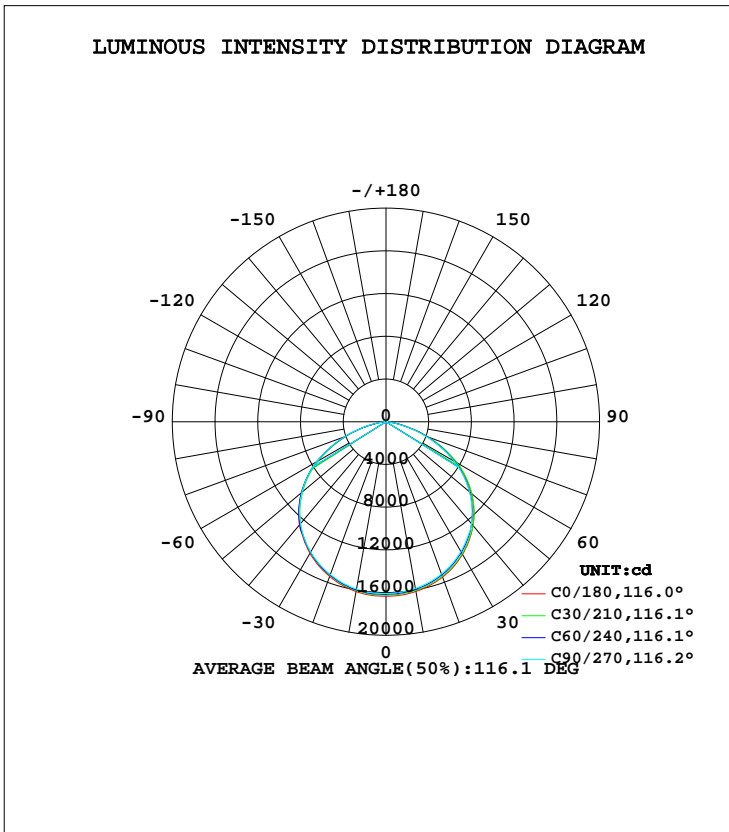


LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: F6021-300W	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:0.302*0.302	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 155.74 lm/W			
MODEL	F6021-300W	Imax(cd)	16338	S/MH(C0/180)	1.30
NOMINAL POWER(W)	302	LOR(%)	100.0	S/MH(C90/270)	1.30
RATED VOLTAGE(V)	232	TOTAL FLUX(lm)	47448	η UP, DN(C0-180)	0.9, 48.7
NOMINAL FLUX(lm)	47447.6	CIE CLASS	DIRECT	η UP, DN(C180-360)	1.1, 49.3
LAMPS INSIDE	1	η up(%)	1.9	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	231.7	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=0.7375]  
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	lum, lamp
10	1614	1599	1585	1572	1614	1601	1591	1584	0- 10	1531	1531	3.23,3.23
20	1548	1533	1517	1503	1542	1530	1523	1518	10- 20	4419	5950	12.5,12.5
30	1434	1419	1402	1386	1423	1413	1409	1408	20- 30	6796	12746	26.9,26.9
40	1268	1259	1246	1221	1261	1250	1245	1252	30- 40	8352	21098	44.5,44.5
50	1045	1037	1020	997.7	1033	1026	1028	1036	40- 50	8822	29920	63.1,63.1
60	761.7	754.5	737.1	712.2	743.8	742.7	750.8	764.2	50- 60	7976	37896	79.9,79.9
70	419.9	413.3	397.0	376.7	401.0	404.6	414.3	427.9	60- 70	5696	43592	91.9,91.9
80	108.7	103.9	94.86	81.46	95.77	99.62	107.3	118.6	70- 80	2571	46163	97.3,97.3
90	8.207	8.153	8.138	8.139	11.18	11.05	10.91	10.80	80- 90	375.3	46539	98.1,98.1
100	9.436	9.387	9.388	9.399	12.64	12.50	12.33	12.17	90-100	111.1	46650	98.3,98.3
110	11.01	10.96	10.97	10.98	14.35	14.18	14.00	13.83	100-110	123.7	46774	98.6,98.6
120	12.68	12.63	12.62	12.62	16.01	15.83	15.64	15.47	110-120	132.4	46906	98.9,98.9
130	14.25	14.22	14.20	14.19	17.57	17.39	17.19	17.03	120-130	134.1	47040	99.1,99.1
140	15.91	15.89	15.87	15.83	19.00	18.79	18.59	18.43	130-140	127.5	47168	99.4,99.4
150	17.53	17.46	17.42	17.36	20.27	20.05	19.84	19.69	140-150	112.8	47280	99.6,99.6
160	19.15	19.06	19.00	18.91	21.41	21.08	20.89	20.74	150-160	89.39	47370	99.8,99.8
170	20.38	20.29	20.22	20.10	21.59	21.35	21.16	21.06	160-170	57.93	47428	100,100
180	21.18	21.07	20.96	20.81	21.29	21.06	20.89	20.81	170-180	19.87	47448	100,100
DEG	LUMINOUS INTENSITY:×10cd									UNIT:lm		

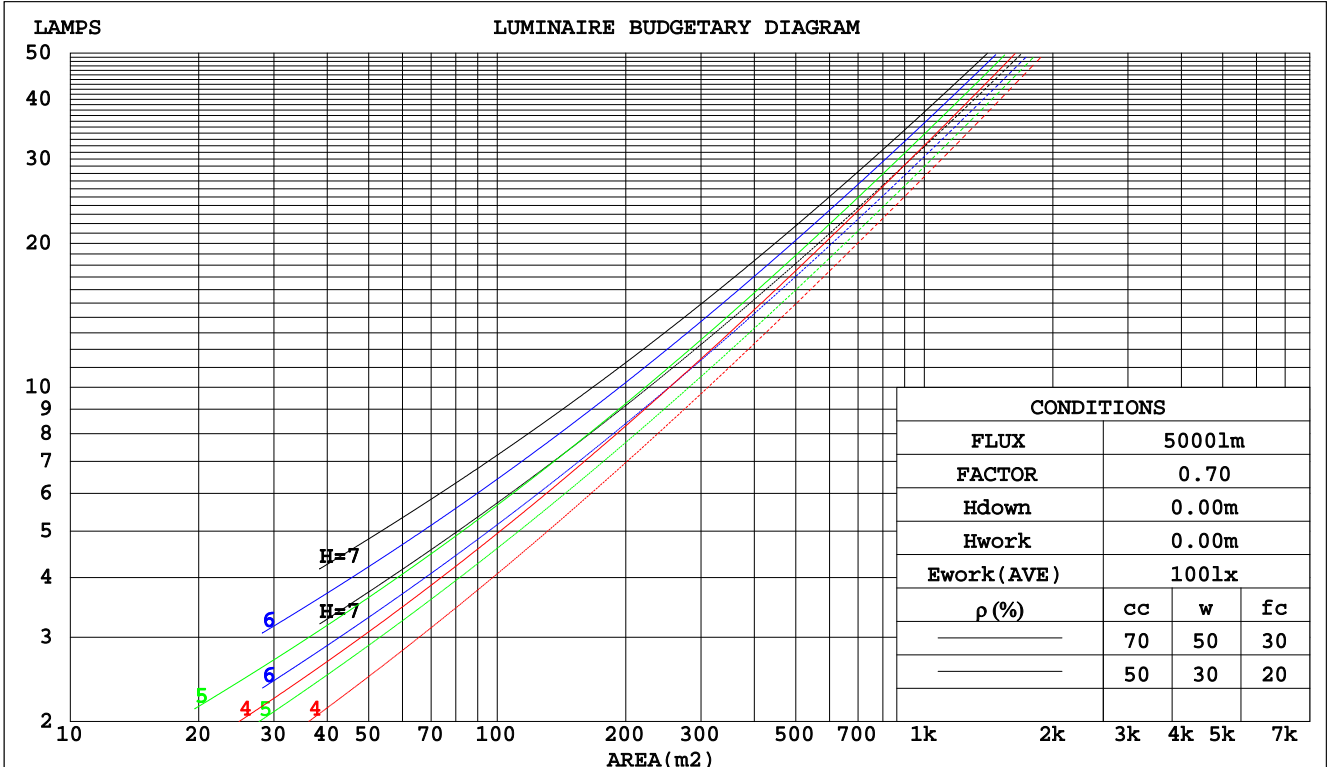
C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2019-04-18

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=0.7375]  
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME: F6021-300W	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	.78	.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=0.7375]  
 Remarks:

WEC AND CCEC

NAME: F6021-300W	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:0.302*0.302	PROTECTION ANGLE:

ρ <sub>cc</sub>	80%			70%			50%			30%			10%			0
ρ <sub>w</sub>	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ <sub>fc</sub>	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.292	.166	.053	.284	.162	.051	.270	.155	.049	.257	.148	.048	.245	.142	.046	
2.0	.280	.154	.047	.274	.151	.046	.261	.145	.045	.249	.140	.044	.239	.135	.043	
3.0	.262	.140	.042	.256	.137	.041	.245	.133	.040	.235	.129	.039	.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	

ρ <sub>cc</sub>	80%			70%			50%			30%			10%			0
ρ <sub>w</sub>	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ <sub>fc</sub>	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	.151	.166	.147	.130	.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	.171	.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	.048	.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=0.7375]  
 Remarks:

Uncorrected UGR Table

NAME: F6021-300W		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	31.8	33.3	32.1	33.5	33.8	31.6	33.1	31.9	33.3	33.6	
3H	33.1	34.5	33.4	34.7	35.0	32.9	34.2	33.2	34.5	34.8	
4H	33.5	34.8	33.8	35.0	35.3	33.2	34.5	33.5	34.8	35.1	
6H	33.6	34.8	34.0	35.1	35.4	33.3	34.5	33.7	34.8	35.1	
8H	33.6	34.8	34.0	35.1	35.4	33.3	34.5	33.7	34.8	35.1	
12H	33.6	34.7	33.9	35.0	35.4	33.2	34.4	33.6	34.7	35.0	
4H 2H	32.4	33.6	32.7	33.9	34.2	32.2	33.5	32.5	33.8	34.1	
3H	33.8	34.9	34.2	35.2	35.6	33.6	34.7	34.0	35.0	35.4	
4H	34.2	35.3	34.6	35.6	36.0	34.0	35.0	34.4	35.4	35.7	
6H	34.4	35.3	34.9	35.7	36.1	34.2	35.1	34.6	35.4	35.9	
8H	34.5	35.3	34.9	35.7	36.1	34.2	35.0	34.6	35.4	35.8	
12H	34.4	35.2	34.9	35.6	36.1	34.1	34.9	34.6	35.3	35.8	
8H 4H	34.4	35.2	34.8	35.6	36.0	34.1	35.0	34.6	35.4	35.8	
6H	34.6	35.3	35.1	35.8	36.2	34.4	35.0	34.8	35.5	36.0	
8H	34.7	35.3	35.2	35.7	36.2	34.4	35.0	34.9	35.5	35.9	
12H	34.7	35.2	35.2	35.7	36.2	34.4	34.9	34.9	35.4	35.9	
12H 4H	34.3	35.1	34.8	35.5	36.0	34.1	34.9	34.6	35.3	35.7	
6H	34.6	35.2	35.1	35.7	36.2	34.4	35.0	34.8	35.4	35.9	
8H	34.7	35.2	35.2	35.7	36.2	34.4	34.9	34.9	35.4	35.9	
Variations with the observer position at spacings:											
S = 1.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.3					
1.5H	+ 0.3 / - 0.4					+ 0.2 / - 0.5					
2.0H	+ 0.3 / - 0.4					+ 0.3 / - 0.3					

CIE Pub.117 Corrected 47448 lm Total Lamp Luminous Flux.(8log(F/F0) = 13.4)

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=0.7375]  
 Remarks:

UTILIZATION FACTORS TABLE

NAME: F6021-300W	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:0.302*0.302	PROTECTION ANGLE:

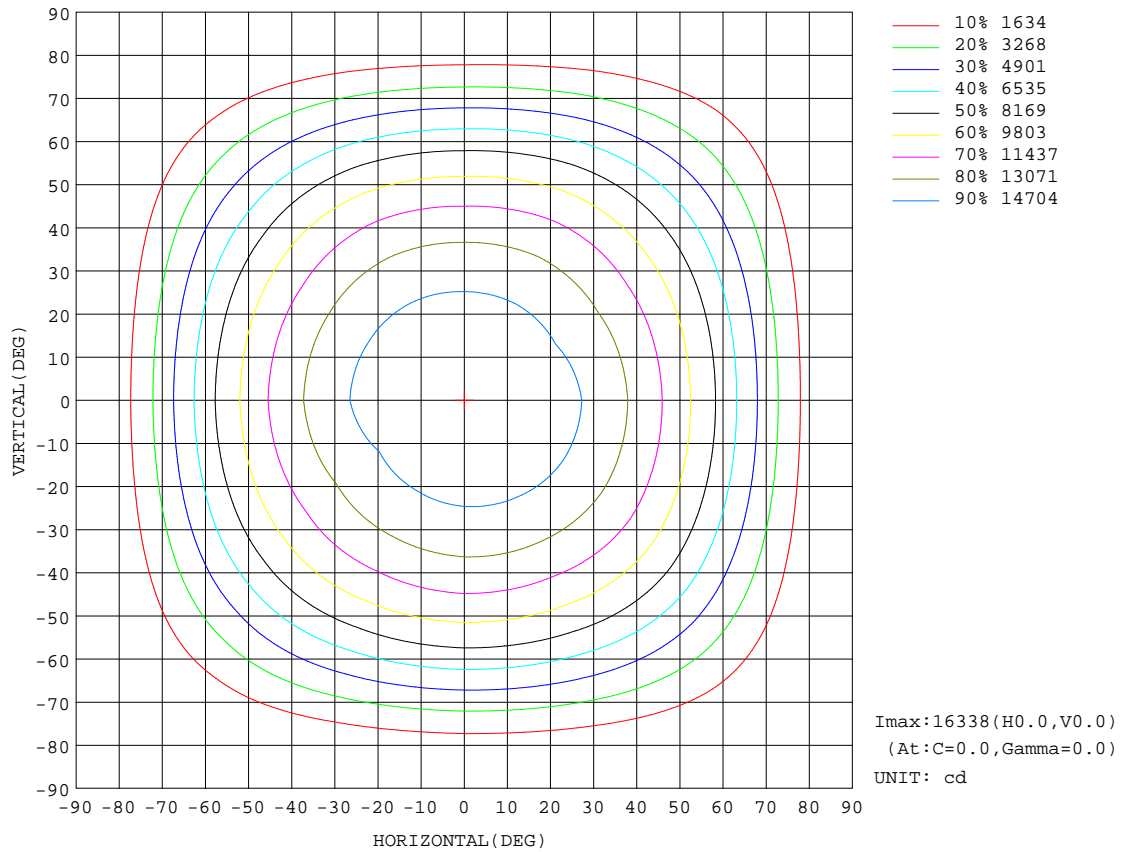
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	57	46	39	56	45	38	55	45	38	32
0.80	67	56	49	66	55	48	64	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	99	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

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.267  
 Humidity:65.0%  
 Test Distance:8.000m [K=0.7375]  
 Remarks:

ISOCANDELA DIAGRAM

NAME: F6021-300W	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:0.302*0.302	PROTECTION ANGLE:

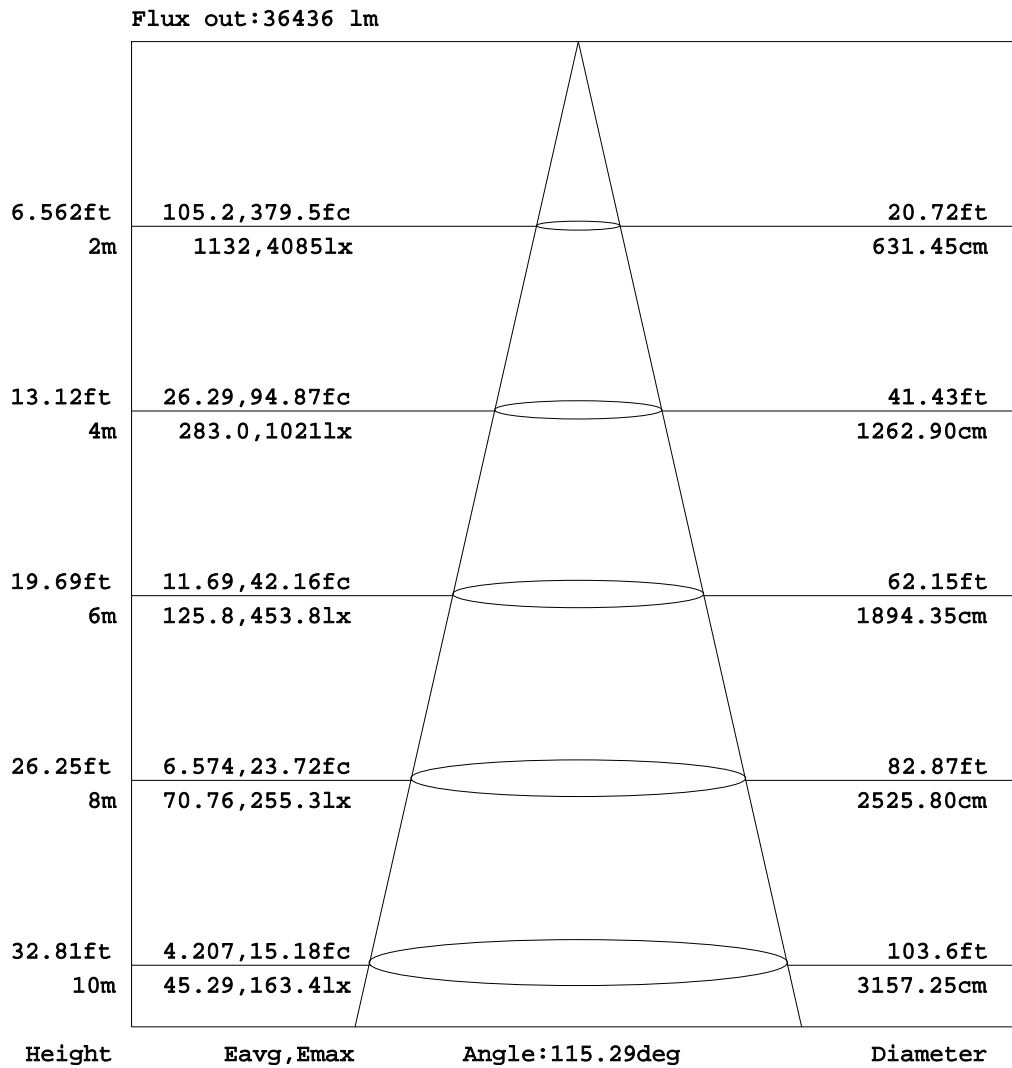


C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2019-04-18

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=0.7375]  
 Remarks:

AAI Figure

NAME: F6021-300W	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.

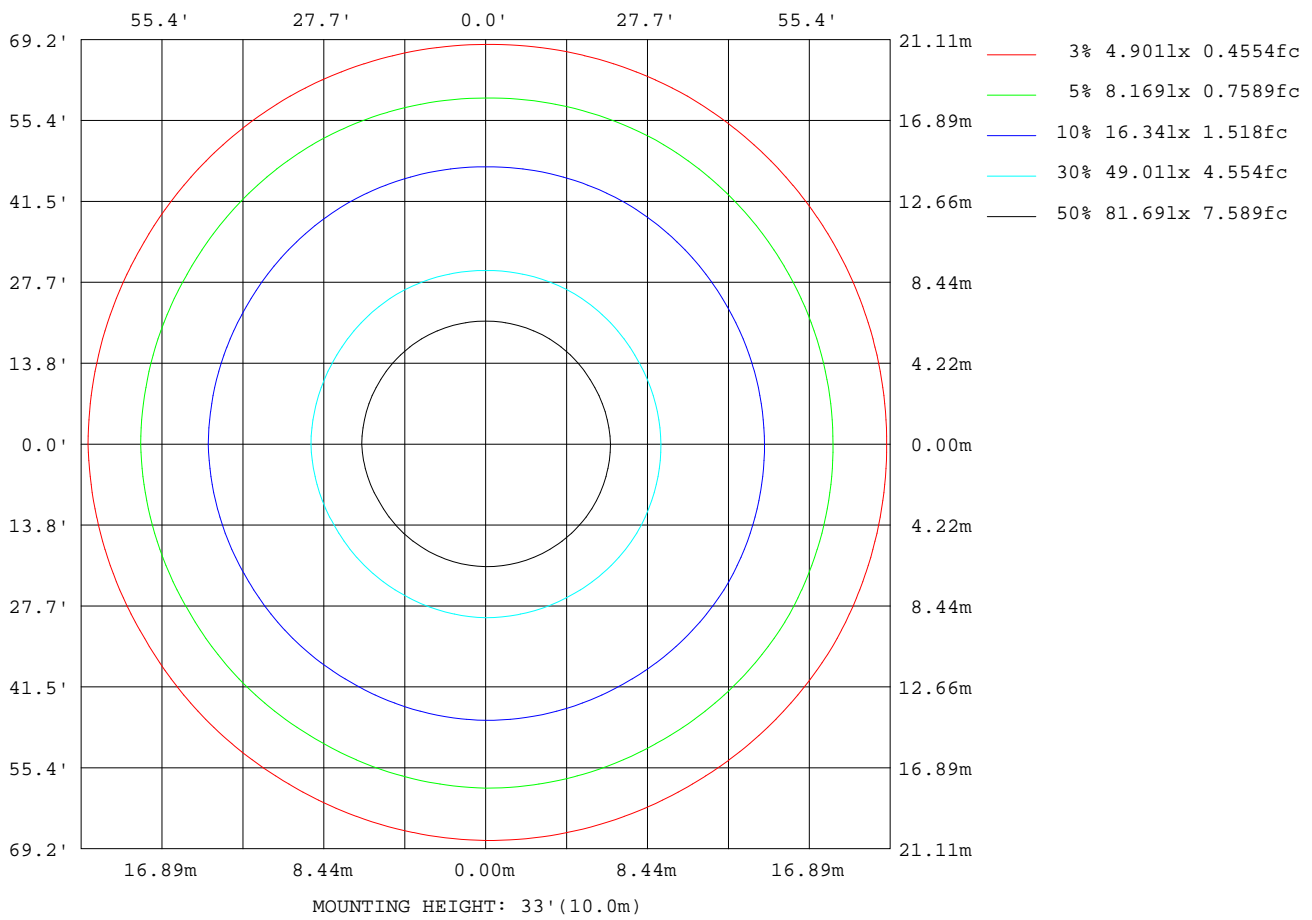
C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DAMIN  
 Test Date: 2019-04-18

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=0.7375]  
 Remarks:



**ISOLUX DIAGRAM**

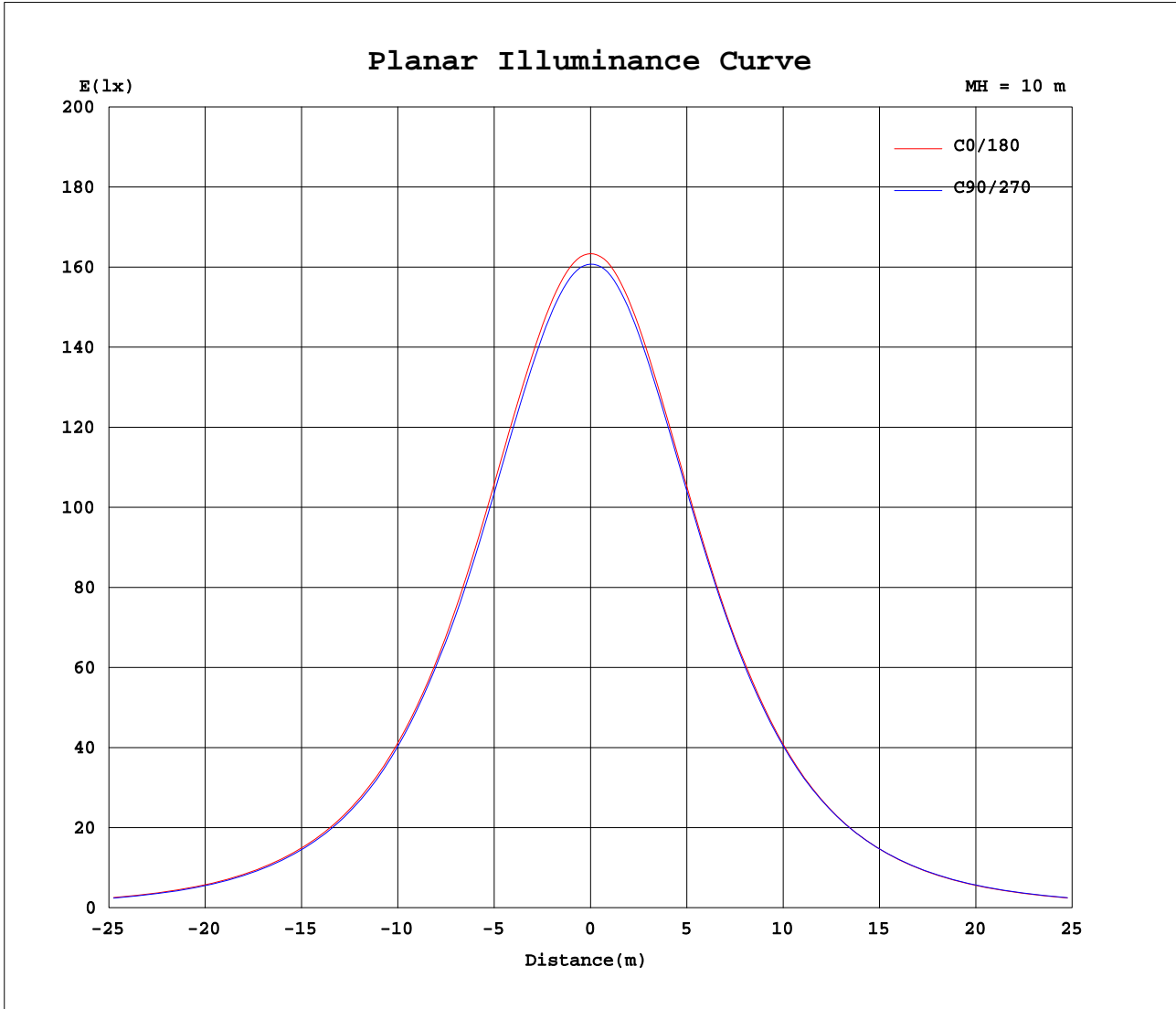
<b>NAME:</b> F6021-300W	<b>TYPE:</b>	<b>WEIGHT:</b>
<b>DIM.:</b>	<b>SPEC.:</b>	<b>SERIAL No.:</b>
<b>MFR.:</b>	<b>SUR.:0.302*0.302</b>	<b>PROTECTION ANGLE:</b>



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

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.267  
 Humidity: 65.0%  
 Test Distance: 8.000m [K=0.7375]  
 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=0.7375]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: F6021-300W	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	1634	1624	1616	1608	1600	1594	1634	1624	1616	1608	1600	1594							
5	1629	1620	1610	1602	1594	1587	1631	1622	1614	1607	1601	1595							
10	1614	1604	1593	1585	1575	1569	1614	1604	1598	1591	1587	1580							
15	1586	1577	1565	1556	1546	1539	1585	1575	1570	1563	1560	1554							
20	1548	1539	1527	1517	1506	1499	1542	1532	1528	1523	1521	1516							
25	1498	1489	1476	1466	1454	1447	1489	1480	1477	1472	1472	1467							
30	1434	1427	1412	1402	1389	1382	1423	1414	1413	1409	1410	1406							
35	1357	1351	1337	1327	1312	1306	1344	1336	1336	1333	1336	1332							
40	1268	1270	1247	1246	1221	1222	1261	1245	1255	1245	1258	1246							
45	1164	1167	1142	1140	1116	1117	1155	1138	1152	1143	1157	1146							
50	1045	1050	1024	1020	996	999	1033	1019	1034	1028	1042	1031							
55	912	917	891	888	864	867	898	886	901	898	912	904							
60	762	768	741	737	711	713	744	733	752	751	767	761							
65	593	594	575	566	546	543	573	569	582	585	599	596							
70	420	422	404	397	378	375	401	398	411	414	428	428							
75	250	250	235	230	213	210	231	230	242	245	260	261							
80	109	109	98.5	94.9	82.5	80.4	95.8	94.8	104	107	118	119							
85	24.8	25.0	20.6	19.3	15.5	14.9	20.8	21.1	24.1	26.1	30.3	31.0							
90	8.21	8.16	8.14	8.14	8.15	8.13	11.2	11.1	11.0	10.9	10.8	10.8							
95	8.76	8.72	8.70	8.71	8.72	8.71	11.8	11.8	11.7	11.6	11.5	11.4							
100	9.44	9.39	9.39	9.39	9.41	9.39	12.6	12.5	12.4	12.3	12.2	12.1							
105	10.2	10.2	10.1	10.1	10.2	10.2	13.5	13.4	13.3	13.2	13.0	13.0							
110	11.0	11.0	11.0	11.0	11.0	11.0	14.4	14.2	14.1	14.0	13.9	13.8							
115	11.9	11.8	11.8	11.8	11.8	11.8	15.2	15.1	15.0	14.8	14.7	14.6							
120	12.7	12.6	12.6	12.6	12.6	12.6	16.0	15.9	15.8	15.6	15.5	15.4							
125	13.5	13.4	13.4	13.4	13.4	13.4	16.8	16.7	16.6	16.4	16.3	16.2							
130	14.2	14.2	14.2	14.2	14.2	14.2	17.6	17.4	17.3	17.2	17.1	17.0							
135	15.1	15.1	15.0	15.0	15.0	15.0	18.3	18.1	18.0	17.9	17.8	17.6							
140	15.9	15.9	15.9	15.9	15.8	15.8	19.0	18.8	18.7	18.6	18.5	18.4							
145	16.7	16.7	16.6	16.6	16.6	16.5	19.7	19.5	19.4	19.3	19.2	19.0							
150	17.5	17.5	17.4	17.4	17.4	17.3	20.3	20.1	20.0	19.8	19.8	19.6							
155	18.4	18.3	18.2	18.2	18.2	18.1	20.9	20.6	20.6	20.4	20.3	20.2							
160	19.2	19.1	19.0	19.0	18.9	18.9	21.4	21.1	21.0	20.9	20.8	20.7							
165	19.9	19.8	19.7	19.7	19.6	19.6	21.8	21.5	21.4	21.3	21.2	21.1							
170	20.4	20.4	20.2	20.2	20.1	20.1	21.6	21.4	21.3	21.2	21.1	21.0							
175	20.8	20.8	20.6	20.6	20.5	20.5	21.4	21.2	21.1	21.0	21.0	20.8							
180	21.2	21.2	21.0	21.0	20.8	20.8	21.3	21.1	21.1	20.9	20.9	20.7							

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=0.7375]  
 Remarks: