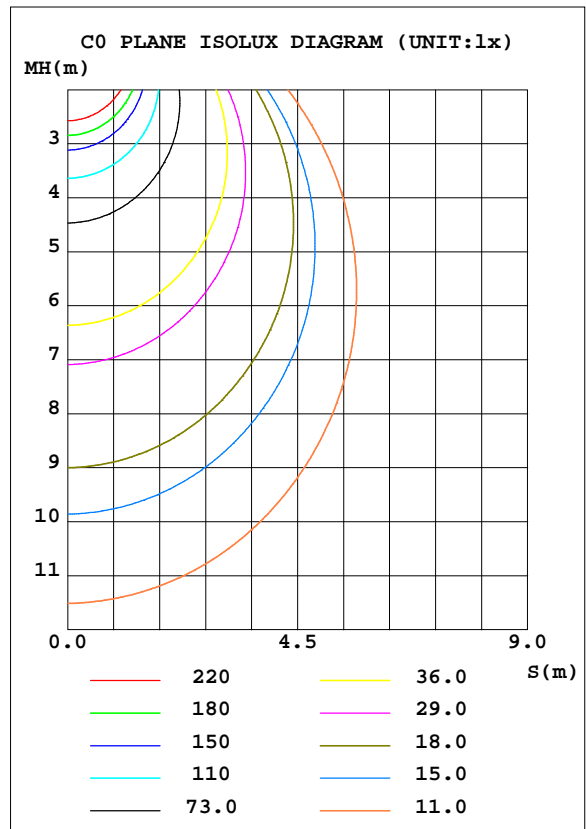
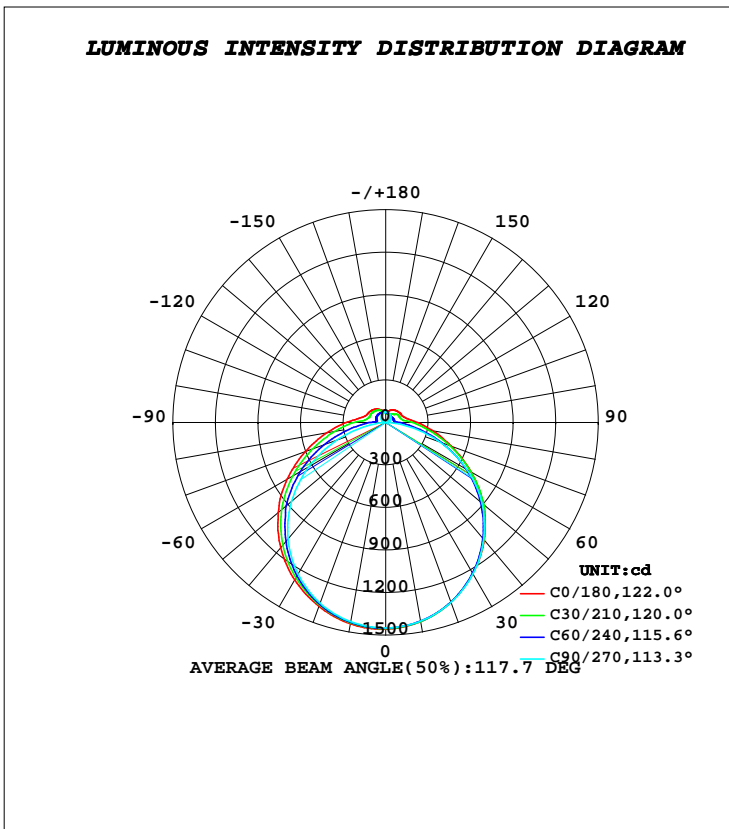


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:221.7V I:0.2150A P:45.80W PF:0.9590 Lamp Flux:5121.8x1 lm		
NAME: 50W 支架灯	TYPE:LED	
MFR.:		

DATA OF LAMP		PHOTOMETRIC DATA Eff: 111.83 lm/W			
MODEL	50W 支架灯	I _{max} (cd)	1458	S/MH(C0/180)	1.26
NOMINAL POWER(W)	50	LOR(%)	100.0	S/MH(C90/270)	1.26
RATED VOLTAGE(V)	222	TOTAL FLUX(lm)	5121.8	η UP, DN(C0-180)	5.4,44.1
NOMINAL FLUX(lm)	5121.8	CIE CLASS	SEMI-D.	η UP, DN(C180-360)	5.7,44.8
LAMPS INSIDE	1	η up(%)	11.1	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	221.6	η down(%)	88.9	CIBSE SHR MAX	1.35



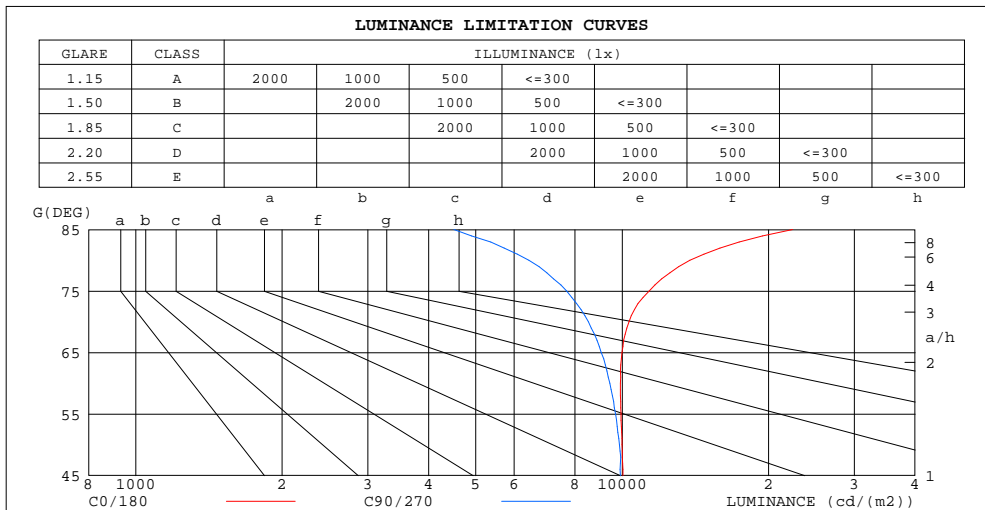
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2017-05-17

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=0.7063]
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	1426	1424	1423	1423	1442	1433	1426	1423	0- 10	137.3	137.3	2.68,2.68
20	1349	1348	1349	1352	1379	1367	1356	1350	10- 20	394.3	531.7	10.4,10.4
30	1231	1228	1232	1243	1283	1259	1237	1231	20- 30	601.1	1133	22.1,22.1
40	1082	1073	1075	1099	1152	1112	1072	1073	30- 40	732.9	1866	36.4,36.4
50	899.1	888.8	888.4	923.6	990.0	937.6	866.0	887.2	40- 50	774.2	2640	51.5,51.5
60	693.7	673.7	660.5	719.9	802.6	727.3	625.6	669.1	50- 60	720.5	3360	65.6,65.6
70	494.7	450.5	407.9	502.5	603.1	506.6	367.7	449.0	60- 70	579.2	3940	76.9,76.9
80	335.0	258.6	156.2	306.0	422.5	305.9	113.3	266.5	70- 80	391.8	4331	84.6,84.6
90	223.7	143.0	11.89	170.6	279.5	167.4	13.25	151.6	80- 90	222.0	4553	88.9,88.9
100	157.3	88.74	14.27	103.6	185.8	102.9	17.10	95.72	90-100	127.4	4681	91.4,91.4
110	129.9	82.80	22.22	97.44	148.8	98.39	24.88	88.60	100-110	96.63	4777	93.3,93.3
120	122.2	80.01	31.07	97.41	139.8	99.71	32.98	86.93	110-120	87.22	4865	95,95
130	117.5	73.71	39.67	95.88	132.6	98.66	40.85	80.12	120-130	78.18	4943	96.5,96.5
140	111.2	66.00	48.24	92.09	122.2	94.91	48.45	72.70	130-140	64.80	5008	97.8,97.8
150	101.9	64.75	58.25	86.67	109.1	89.33	58.39	68.38	140-150	50.43	5058	98.8,98.8
160	92.17	62.63	67.69	80.47	94.36	82.62	67.69	65.69	150-160	35.77	5094	99.5,99.5
170	72.94	65.81	74.00	77.70	80.31	78.98	73.83	65.22	160-170	21.01	5115	99.9,99.9
180	68.82	76.00	76.74	73.37	68.96	75.96	76.08	73.13	170-180	7.004	5122	100,100
DEG	LUMINOUS INTENSITY:cd								UNIT:lm			



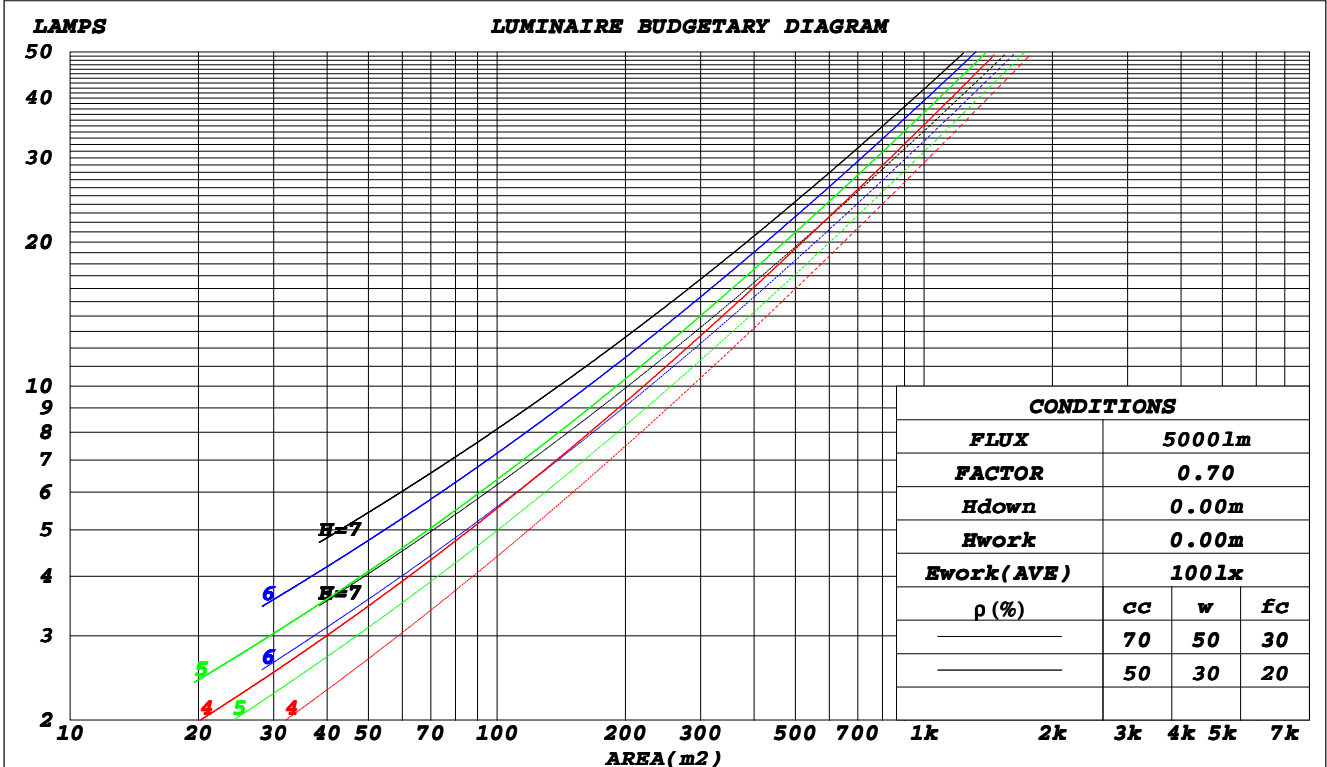
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2017-05-17

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=0.7063]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:221.7V I:0.2150A P:45.80W PF:0.9590 Lamp Flux:5121.8x1 lm		
NAME: 50W 支架灯	TYPE:LED	
MFR.:		

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	1.16	1.16	1.16	1.12	1.12	1.12	1.05	1.05	1.05	.98	.98	.98	.92	.92	.92	.89
1.0	.00	.95	.91	.96	.92	.88	.90	.86	.83	.84	.81	.79	.79	.77	.75	.72
2.0	.86	.79	.73	.83	.77	.71	.78	.72	.68	.73	.68	.65	.68	.65	.62	.59
3.0	.75	.67	.60	.73	.65	.59	.68	.62	.56	.64	.59	.54	.60	.56	.52	.49
4.0	.66	.57	.50	.64	.56	.50	.60	.53	.48	.57	.51	.46	.53	.48	.44	.41
5.0	.59	.50	.43	.57	.49	.42	.54	.47	.41	.51	.44	.40	.48	.42	.38	.36
6.0	.53	.44	.38	.52	.43	.37	.49	.41	.36	.46	.39	.35	.43	.38	.33	.31
7.0	.48	.39	.33	.47	.38	.32	.44	.37	.31	.42	.35	.30	.39	.34	.30	.27
8.0	.44	.35	.29	.43	.34	.29	.40	.33	.28	.38	.32	.27	.36	.31	.26	.24
9.0	.40	.32	.26	.39	.31	.26	.37	.30	.25	.35	.29	.24	.33	.28	.24	.22
10.0	.37	.29	.24	.36	.28	.23	.34	.27	.23	.33	.26	.22	.31	.26	.22	.20



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2017-05-17

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=0.7063]
 Remarks:

WEC AND CCEC

Test:U:221.7V I:0.2150A P:45.80W PF:0.9590 Lamp Flux:5121.8x1 lm		
NAME: 50W 支架灯	TYPE:LED	
MFR.:		

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.340	.193	.061	.330	.188	.060	.310	.178	.057	.292	.168	.054	.275	.160	.051	
2.0	.307	.168	.052	.298	.164	.051	.280	.156	.048	.264	.148	.046	.249	.141	.044	
3.0	.279	.148	.044	.270	.145	.044	.255	.138	.042	.240	.131	.040	.226	.125	.039	
4.0	.255	.132	.039	.247	.129	.038	.233	.123	.037	.219	.118	.036	.207	.112	.034	
5.0	.234	.119	.034	.227	.116	.034	.214	.111	.033	.202	.107	.032	.191	.102	.031	
6.0	.216	.108	.031	.209	.106	.030	.198	.101	.029	.187	.097	.029	.176	.093	.028	
7.0	.200	.099	.028	.194	.097	.028	.184	.093	.027	.174	.089	.026	.164	.085	.025	
8.0	.186	.091	.026	.181	.089	.025	.171	.086	.024	.162	.082	.024	.154	.079	.023	
9.0	.174	.084	.024	.169	.083	.023	.161	.079	.022	.152	.076	.022	.144	.073	.021	
10.0	.163	.078	.022	.159	.077	.021	.151	.074	.021	.143	.071	.020	.136	.068	.020	

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0																
1.0	.275	.275	.275	.235	.235	.235	.160	.160	.160	.092	.092	.092	.029	.029	.029	
2.0	.268	.241	.217	.229	.207	.187	.157	.142	.129	.090	.082	.075	.029	.027	.024	
3.0	.260	.218	.182	.223	.187	.157	.153	.130	.110	.088	.075	.064	.028	.024	.021	
4.0	.253	.201	.159	.216	.173	.138	.149	.120	.097	.086	.070	.057	.028	.023	.019	
5.0	.245	.188	.144	.210	.162	.125	.144	.113	.088	.084	.066	.052	.027	.022	.017	
6.0	.237	.178	.134	.204	.154	.116	.140	.107	.082	.081	.063	.049	.026	.021	.016	
7.0	.230	.170	.126	.198	.147	.110	.136	.103	.078	.079	.060	.046	.026	.020	.015	
8.0	.223	.163	.120	.192	.141	.105	.133	.099	.074	.077	.058	.044	.025	.019	.015	
9.0	.217	.157	.116	.187	.136	.101	.129	.096	.072	.075	.056	.043	.024	.019	.014	
10.0	.211	.152	.113	.182	.132	.099	.126	.093	.070	.073	.055	.042	.024	.018	.014	
10.0	.205	.148	.110	.177	.129	.096	.123	.091	.068	.071	.054	.041	.023	.018	.014	

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2017-05-17

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=0.7063]
 Remarks:

Uncorrected UGR Table

Test:U:221.7V I:0.2150A P:45.80W PF:0.9590 Lamp Flux:5121.8x1 lm										
NAME: 50W 支架灯						TYPE:LED				
MFR.:										

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	20.2	21.6	20.6	22.0	22.4	19.9	21.3	20.3	21.7	22.1
3H	22.0	23.3	22.4	23.7	24.2	21.4	22.7	21.9	23.1	23.6
4H	22.9	24.1	23.4	24.6	25.1	22.0	23.2	22.5	23.7	24.1
6H	23.9	25.0	24.4	25.5	26.0	22.4	23.5	22.9	24.0	24.5
8H	24.4	25.5	24.9	26.0	26.5	22.5	23.6	23.0	24.1	24.6
12H	25.0	26.1	25.5	26.6	27.1	22.5	23.6	23.0	24.1	24.6
4H 2H	20.7	22.0	21.2	22.4	22.9	20.5	21.7	21.0	22.2	22.7
3H	22.8	23.8	23.3	24.3	24.9	22.2	23.3	22.7	23.8	24.3
4H	23.9	24.8	24.4	25.4	25.9	22.9	23.9	23.5	24.4	25.0
6H	25.0	25.9	25.6	26.4	27.0	23.5	24.3	24.0	24.9	25.5
8H	25.7	26.5	26.2	27.0	27.6	23.6	24.4	24.2	25.0	25.6
12H	26.4	27.2	27.0	27.7	28.4	23.7	24.5	24.3	25.0	25.7
8H 4H	24.1	25.0	24.7	25.5	26.1	23.3	24.1	23.9	24.7	25.3
6H	25.6	26.2	26.2	26.8	27.5	24.1	24.7	24.7	25.3	26.0
8H	26.4	27.0	27.0	27.6	28.3	24.4	25.0	25.0	25.6	26.3
12H	27.3	27.9	28.0	28.5	29.2	24.6	25.1	25.2	25.7	26.4
12H 4H	24.2	24.9	24.7	25.5	26.1	23.4	24.2	24.0	24.7	25.4
6H	25.6	26.2	26.3	26.9	27.5	24.3	24.9	24.9	25.5	26.2
8H	26.6	27.1	27.2	27.7	28.4	24.6	25.2	25.3	25.8	26.5
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.3					+ 0.1 / - 0.3				

CIE Pub.117 Corrected 5122 lm Total Lamp Luminous Flux.(8log(F/F0) = 5.7)

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2017-05-17

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=0.7063]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:221.7V I:0.2150A P:45.80W PF:0.9590 Lamp Flux:5121.8x1 lm		
NAME: 50W 支架灯	TYPE:LED	
MFR.:		

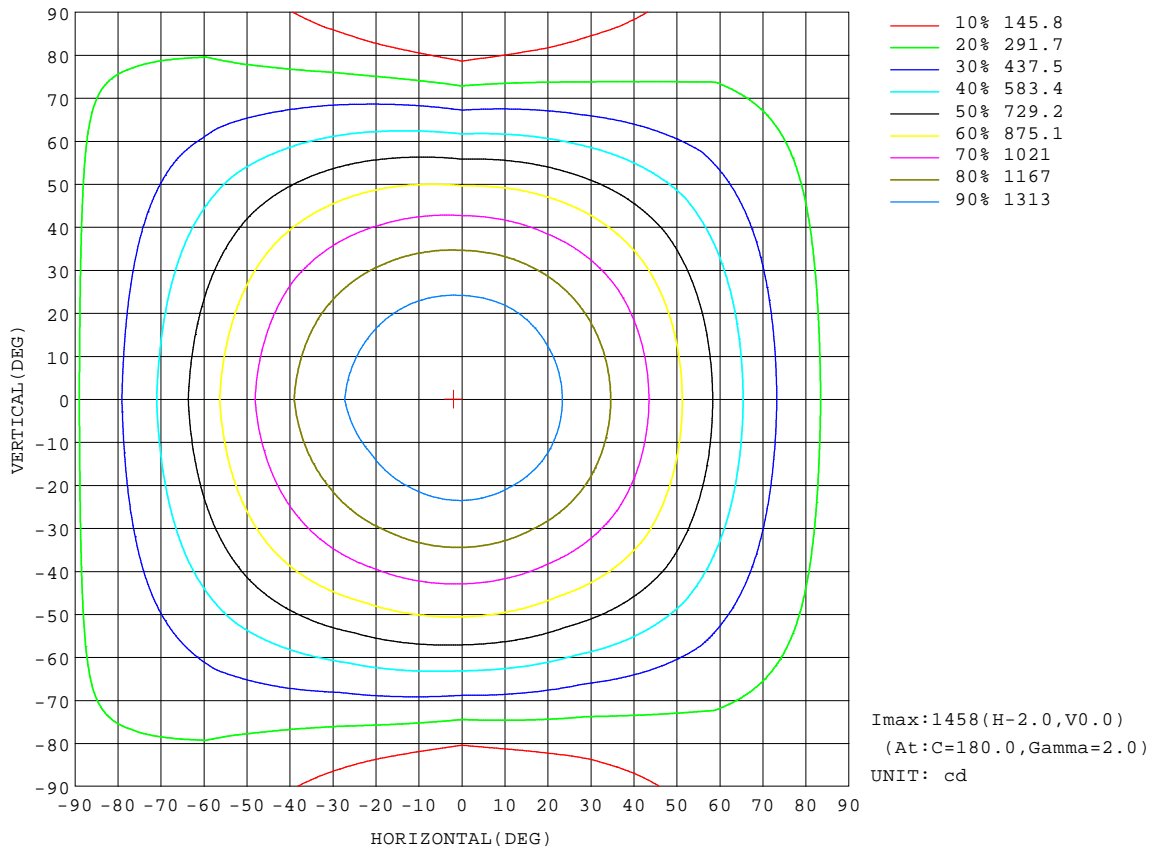
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	52	41	34	51	40	33	50	39	33	26
0.80	62	50	42	61	49	42	58	48	41	34
1.00	70	58	51	69	57	50	65	58	49	41
1.25	77	66	58	75	65	57	71	62	56	47
1.50	82	71	64	80	70	63	76	67	61	52
2.00	89	80	72	87	78	71	82	74	69	58
2.50	93	85	78	91	83	76	85	79	73	62
3.00	97	89	83	94	87	81	88	82	78	66
4.00	101	95	89	98	92	87	92	87	83	71
5.00	104	98	93	101	95	91	94	90	86	74
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:2017-05-17

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=0.7063]
Remarks:

ISOCANDELA DIAGRAM

Test:U:221.7V I:0.2150A P:45.80W PF:0.9590 Lamp Flux:5121.8x1 lm		
NAME: 50W 支架灯	TYPE:LED	
MFR.:		



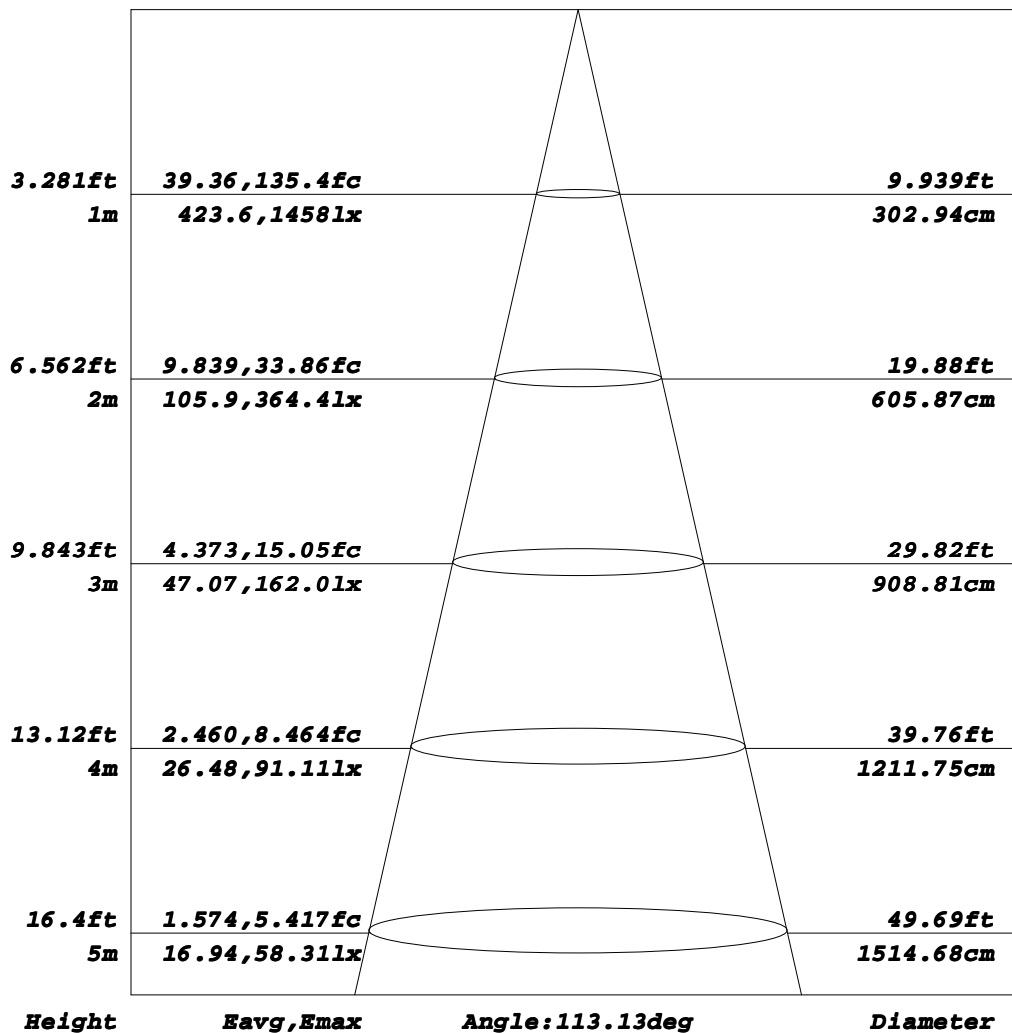
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2017-05-17

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=0.7063]
Remarks:

AAI Figure

Test:U:221.7V I:0.2150A P:45.80W PF:0.9590 Lamp Flux:5121.8x1 lm		
NAME: 50W 支架灯	TYPE:LED	
MFR.:		

Flux out:3156 lm



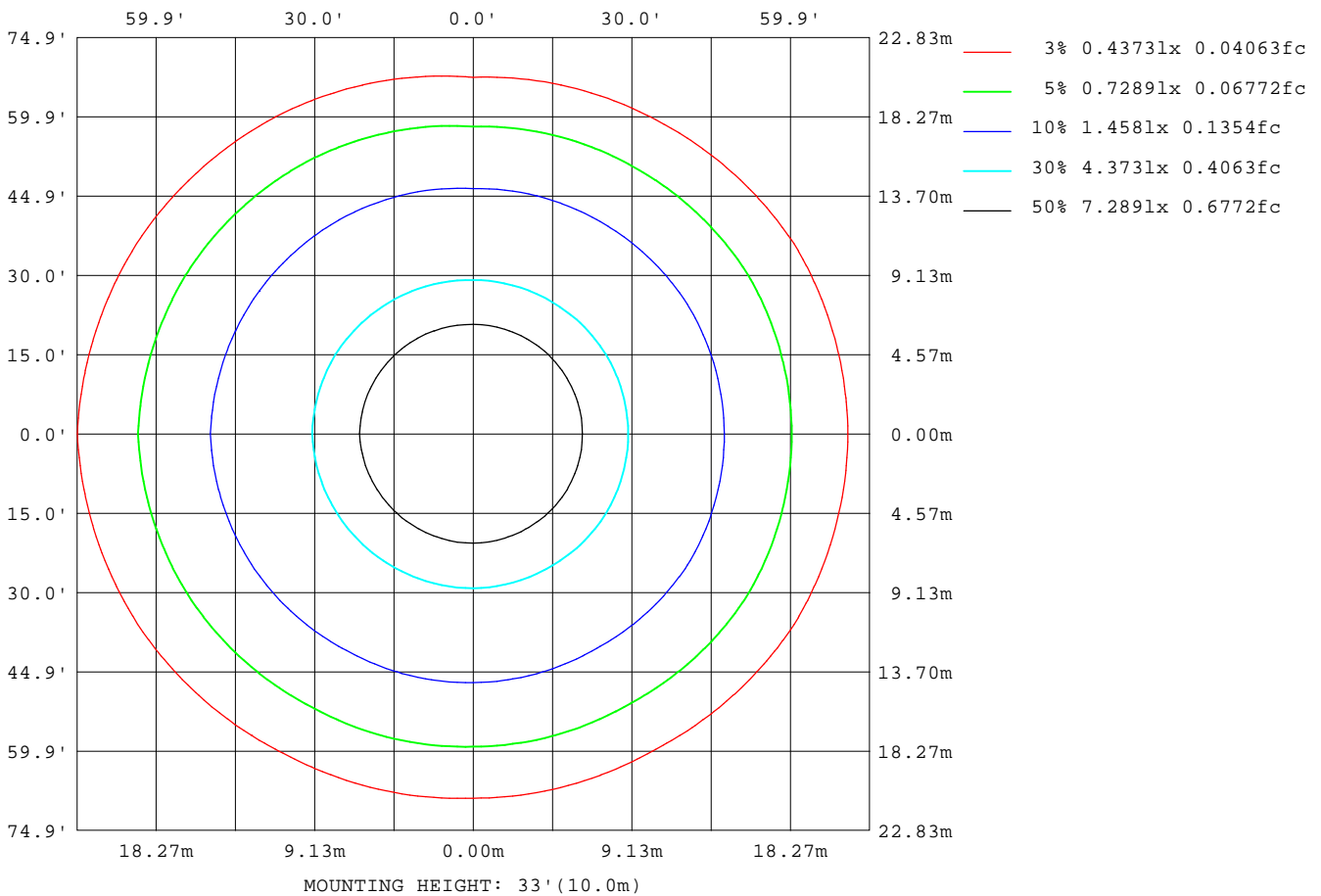
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2017-05-17

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=0.7063]
 Remarks:

ISOLUX DIAGRAM

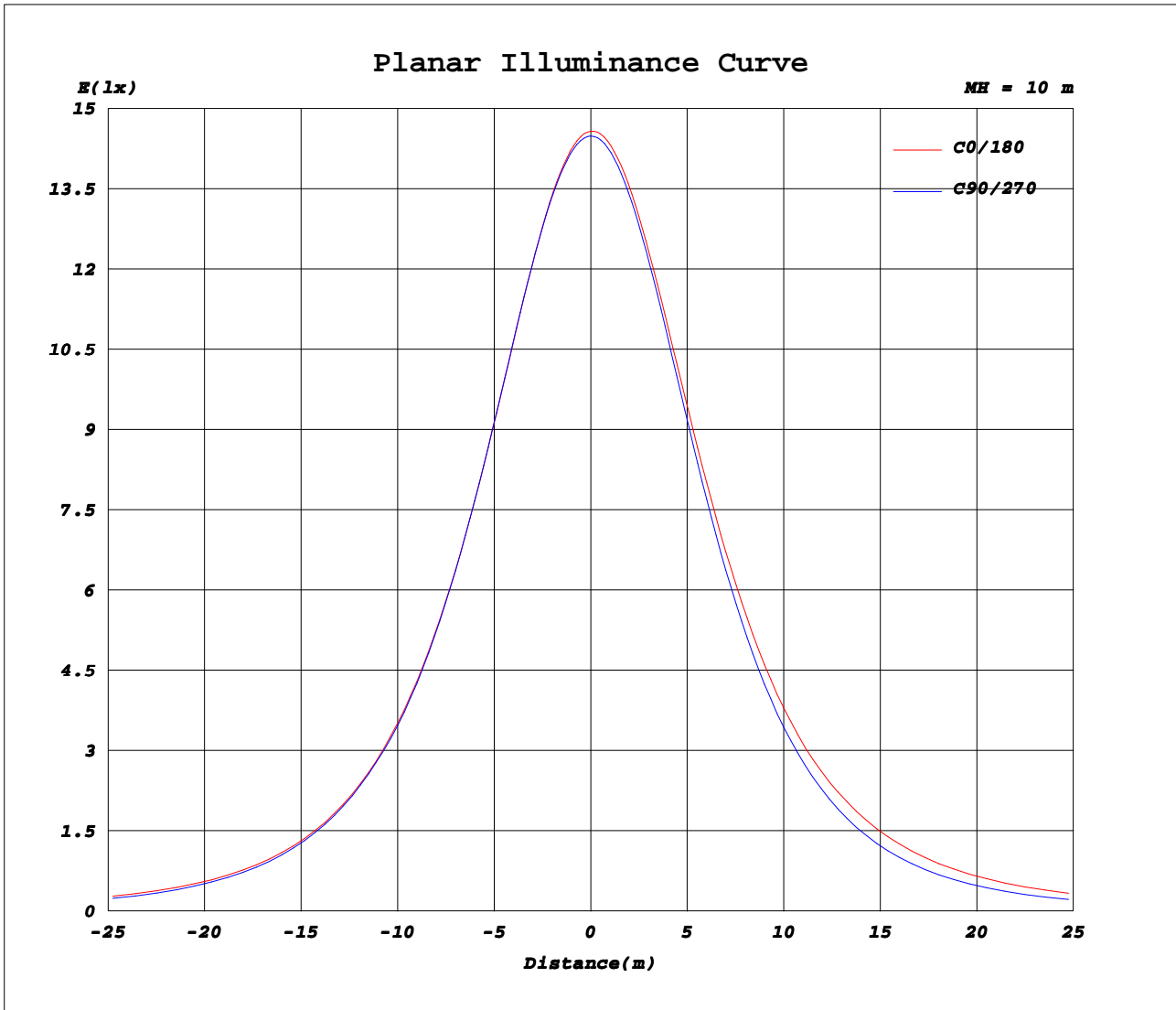
Test:U:221.7V I:0.2150A P:45.80W PF:0.9590 Lamp Flux:5121.8x1 lm		
NAME: 50W 支架灯	TYPE:LED	
MFR.:		



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2017-05-17

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=0.7063]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2017-05-17

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=0.7063]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:221.7V I:0.2150A P:45.80W PF:0.9590 Lamp Flux:5121.8x1 lm		
NAME: 50W 支架灯	TYPE:LED	
MFR.:		

Table--1

UNIT: cd

C (DEG) \ γ (DEG)	0	30	60	90	120	150	180	210	240	270	300	330							
0	1458	1454	1451	1449	1447	1446	1458	1454	1451	1449	1447	1446							
5	1448	1446	1442	1442	1441	1441	1456	1450	1447	1444	1442	1439							
10	1426	1425	1422	1423	1422	1423	1442	1434	1431	1426	1425	1420							
15	1393	1393	1390	1392	1391	1395	1416	1407	1404	1397	1396	1389							
20	1349	1349	1347	1349	1350	1355	1379	1370	1364	1356	1353	1347							
25	1294	1294	1292	1296	1298	1307	1335	1323	1313	1302	1299	1293							
30	1231	1230	1226	1232	1235	1251	1283	1267	1250	1237	1233	1229							
35	1161	1159	1151	1158	1164	1187	1222	1202	1177	1160	1156	1158							
40	1082	1079	1067	1075	1083	1114	1152	1129	1094	1072	1068	1078							
45	994	992	973	982	995	1033	1075	1047	1006	973	974	990							
50	899	904	873	888	899	948	990	958	917	866	879	895							
55	799	802	767	779	797	855	902	860	808	749	766	793							
60	694	694	653	660	687	753	803	758	697	626	650	688							
65	591	585	537	536	574	648	702	653	581	496	532	583							
70	495	481	420	408	458	547	603	550	463	368	415	483							
75	412	386	310	279	351	450	509	451	350	234	307	396							
80	335	306	212	156	250	362	422	365	247	113	218	315							
85	273	240	141	55.0	171	286	346	288	165	26.7	148	250							
90	224	190	95.6	11.9	116	226	280	225	109	13.2	104	200							
95	185	146	70.3	11.8	77.8	159	223	156	75.0	14.8	77.5	155							
100	157	120	57.3	14.3	66.9	140	186	138	67.4	17.1	64.3	127							
105	140	111	58.4	17.9	70.6	128	162	127	70.7	20.7	65.2	117							
110	130	106	59.4	22.2	72.8	122	149	123	73.9	24.9	67.0	110							
115	125	104	57.5	26.6	74.7	120	143	122	76.3	29.0	66.9	107							
120	122	103	57.5	31.1	76.2	119	140	121	78.2	33.0	66.0	108							
125	120	99.8	56.4	35.5	77.1	117	137	120	79.3	36.9	64.3	105							
130	117	91.8	55.6	39.7	77.6	114	133	117	79.9	40.8	62.9	97.4							
135	115	82.5	54.9	43.7	77.6	111	128	114	80.0	44.6	61.8	90.2							
140	111	77.9	54.1	48.2	77.2	107	122	110	79.6	48.4	61.1	84.3							
145	107	74.3	54.8	53.1	76.6	102	116	106	78.9	53.2	60.2	79.9							
150	102	72.0	57.5	58.2	76.1	97.2	109	100	78.3	58.4	60.2	76.6							
155	97.2	68.4	59.6	63.1	75.0	91.7	102	94.7	77.1	63.3	61.7	73.2							
160	92.2	63.7	61.6	67.7	74.7	86.2	94.4	88.9	76.4	67.7	62.5	68.9							
165	83.9	61.3	65.5	71.3	76.2	80.8	87.4	83.3	77.5	71.2	64.9	64.0							
170	72.9	61.7	69.9	74.0	77.2	78.2	80.3	79.6	78.4	73.8	69.3	61.2							
175	65.3	68.1	73.8	75.7	77.1	75.9	75.1	78.1	78.4	75.4	72.6	65.4							
180	68.8	75.0	77.0	76.7	76.0	70.7	69.0	74.8	77.1	76.1	75.5	70.7							

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: DAMIN
 Test Date: 2017-05-17

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=0.7063]
 Remarks: