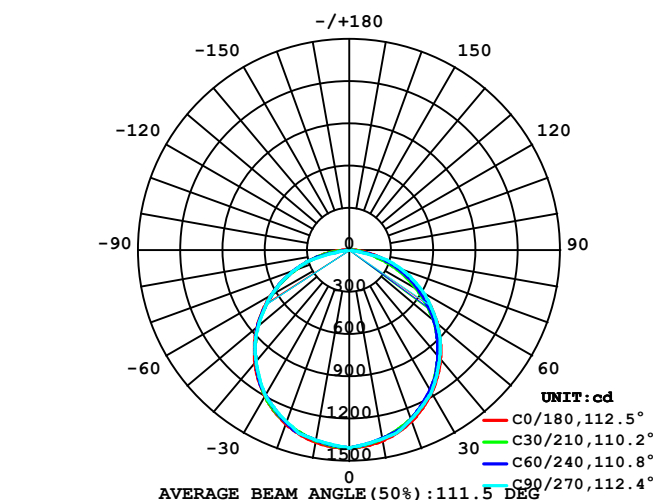


LUMINAIRE PHOTOMETRIC TEST REPORT

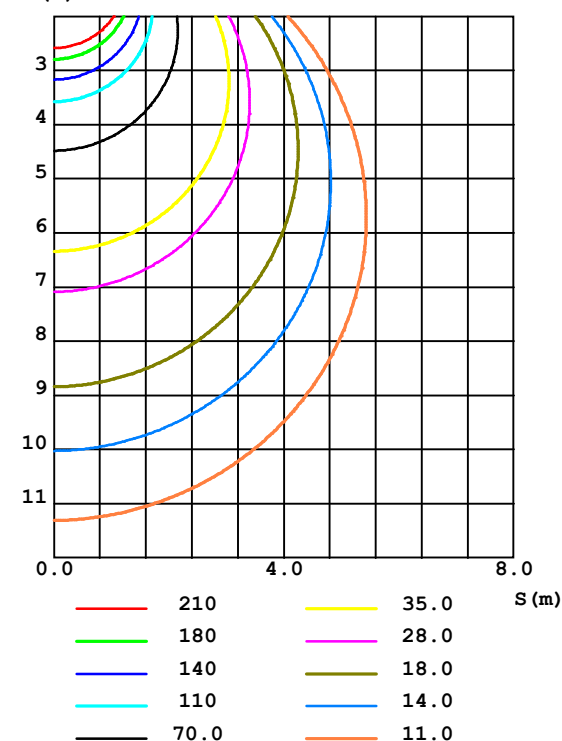
Test:U:220.1V I:0.2590A P:54.30W PF:0.9520 Lamp Flux:3941.88x1 lm		
NAME: LED-S0312S2-056W-CW	TYPE:Cool White	WEIGHT:
DIM.: 1200*300	SPEC.:56W	SERIAL No.:N001
MFR.: LED Lighting	SUR.:0.256*1.156	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 72.59 lm/W			
MODEL	LED	I _{max} (cd)	1408	S/MH (C0/180)	1.24
NOMINAL POWER(W)	56	LOR (%)	100.0	S/MH (C90/270)	1.24
RATED VOLTAGE(V)	220	TOTAL FLUX (lm)	3941.9	η UP,DN (C0-180)	0.0,49.3
NOMINAL FLUX (lm)	3941.88	CIE CLASS	DIRECT	η UP,DN (C180-360)	0.0,50.7
LAMPS INSIDE	1	η up (%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	220.1	η down (%)	100.0	CIBSE SHR MAX	1.35

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:kaddy
Test Date:2012-01-10

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:8.830m [K=1.0000]
Remarks:



ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
5	1398	1387	1385	1391	1404	1394	1390	1390	0- 5	33.41	33.41	0.85,0.85
10	1376	1359	1363	1368	1388	1374	1372	1366	5- 10	98.73	132.1	3.35,3.35
15	1343	1325	1341	1340	1359	1347	1355	1337	10- 15	160.8	292.9	7.43,7.43
20	1297	1286	1284	1308	1317	1316	1302	1302	15- 20	217.5	510.4	12.9,12.9
25	1239	1220	1227	1248	1266	1256	1249	1242	20- 25	266.1	776.5	19.7,19.7
30	1172	1145	1170	1182	1202	1189	1196	1174	25- 30	306.0	1082	27.5,27.5
35	1096	1068	1086	1114	1128	1118	1114	1104	30- 35	335.8	1418	36,36
40	1010	984.0	1002	1040	1046	1042	1032	1028	35- 40	353.8	1772	45,45
45	917.2	880.8	918.0	948.6	955.4	944.9	949.5	930.8	40- 45	360.5	2133	54.1,54.1
50	817.5	776.4	816.1	856.8	857.0	847.8	846.2	833.1	45- 50	355.7	2488	63.1,63.1
55	711.6	671.4	714.3	764.7	752.0	750.0	742.9	735.2	50- 55	338.7	2827	71.7,71.7
60	600.1	556.1	612.4	653.9	641.3	633.8	639.6	621.4	55- 60	310.9	3138	79.6,79.6
65	484.7	443.2	500.2	544.2	525.9	519.6	522.9	509.9	60- 65	273.0	3411	86.5,86.5
70	367.2	333.3	388.0	431.5	407.3	404.6	406.3	397.2	65- 70	225.4	3636	92.3,92.3
75	252.6	226.0	275.9	317.6	289.9	288.6	289.7	282.6	70- 75	171.3	3808	96.6,96.6
80	147.6	109.9	0	177.0	180.3	153.2	0	149.5	75- 80	102.6	3910	99.2,99.2
85	61.11	0	0	0	85.13	0	0	0	80- 85	28.12	3938	99.9,99.9
90	10.95	0	0	0	37.01	0	0	0	85- 90	3.513	3942	100,100
95									90- 95			
100									95-100			
105									100-105			
110									105-110			
115									110-115			
120									115-120			
125									120-125			
130									125-130			
135									130-135			
140									135-140			
145									140-145			
150									145-150			
155									150-155			
160									155-160			
165									160-165			
170									165-170			
175									170-175			
180									175-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

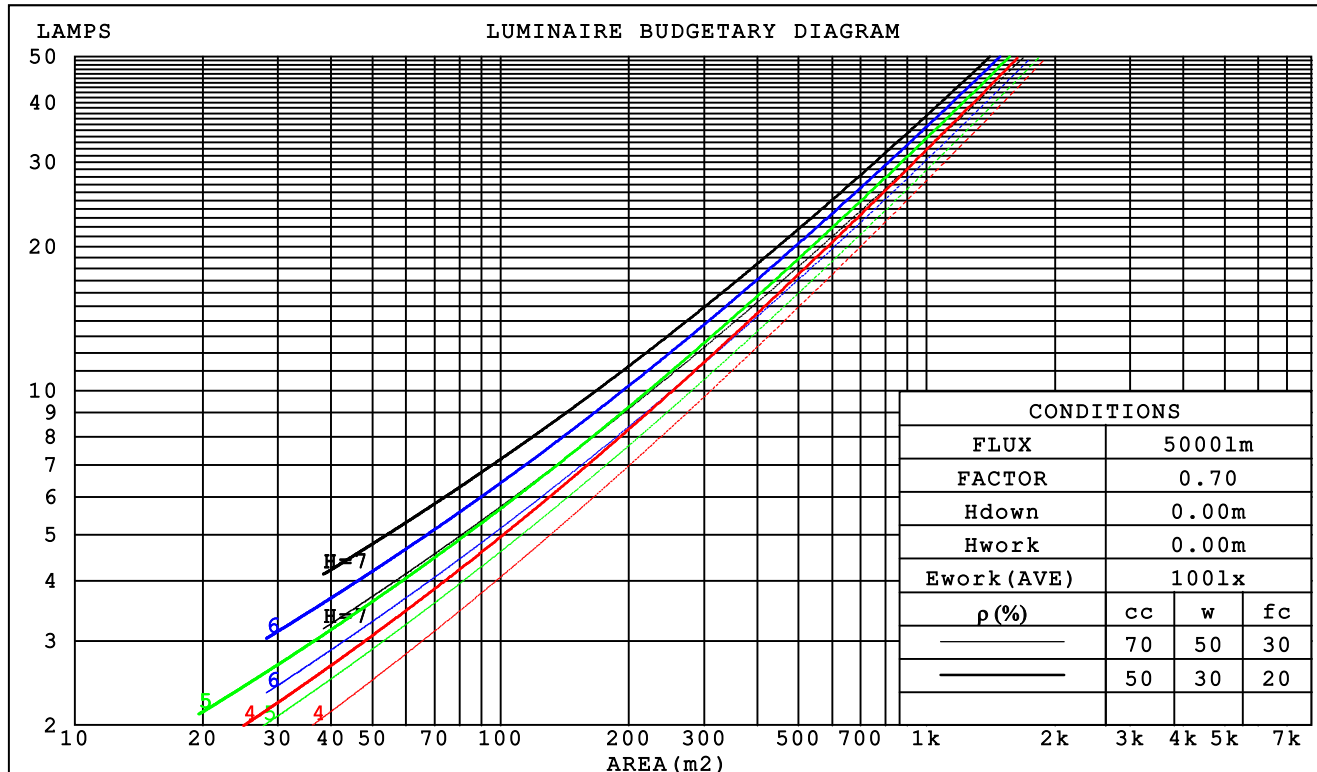
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:kaddy
Test Date:2012-01-10

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:8.830m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.1V I:0.2590A P:54.30W PF:0.9520 Lamp Flux:3941.88x1 lm		
NAME: LED-S0312S2-056W-CW	TYPE:Cool White	WEIGHT:
DIM.: 1200*300	SPEC.:56W	SERIAL No.:N001
MFR.: LED Lighting	SUR.:0.256*1.156	PROTECTION ANGLE:

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	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	1.04	1.00	.97	1.02	.98	.95	.98	.95	.92	.94	.91	.89	.90	.88	.86	.84
2.0	.91	.84	.79	.89	.83	.78	.86	.80	.76	.82	.78	.74	.79	.76	.72	.70
3.0	.80	.72	.65	.78	.71	.65	.75	.69	.63	.72	.67	.62	.70	.65	.61	.59
4.0	.71	.62	.55	.69	.61	.55	.67	.60	.54	.64	.58	.53	.62	.57	.53	.50
5.0	.63	.54	.47	.62	.53	.47	.60	.52	.47	.58	.51	.46	.56	.50	.46	.43
6.0	.57	.48	.41	.56	.47	.41	.54	.46	.41	.52	.46	.40	.51	.45	.40	.38
7.0	.51	.43	.36	.51	.42	.36	.49	.42	.36	.48	.41	.36	.46	.40	.36	.34
8.0	.47	.38	.32	.46	.38	.32	.45	.37	.32	.44	.37	.32	.42	.36	.32	.30
9.0	.43	.35	.29	.42	.35	.29	.41	.34	.29	.40	.34	.29	.39	.33	.29	.27
10.0	.40	.32	.26	.39	.32	.26	.38	.31	.26	.37	.31	.26	.36	.30	.26	.24



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:kaddy
Test Date:2012-01-10

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:8.830m [K=1.0000]
Remarks:



WEC AND CCEC

Test:U:220.1V I:0.2590A P:54.30W PF:0.9520 Lamp Flux:3941.88x1 lm					
NAME: LED-S0312S2-056W-CW			TYPE:Cool White		WEIGHT:
DIM.: 1200*300			SPEC.:56W		SERIAL No.:N001
MFR.: LED Lighting			SUR.:0.256*1.156		PROTECTION ANGLE:

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	.299	.170	.054	.292	.167	.053	.279	.160	.051	.267	.154	.049	.256	.148	.048		
2.0	.287	.157	.048	.280	.154	.048	.269	.149	.046	.258	.145	.045	.248	.140	.044		
3.0	.267	.142	.043	.262	.140	.042	.251	.136	.041	.242	.132	.041	.233	.129	.040		
4.0	.247	.129	.038	.243	.127	.038	.233	.124	.037	.225	.121	.036	.217	.118	.036		
5.0	.229	.117	.034	.225	.115	.034	.217	.113	.033	.209	.110	.033	.202	.108	.032		
6.0	.213	.107	.031	.209	.106	.030	.202	.103	.030	.195	.101	.030	.189	.099	.029		
7.0	.198	.098	.028	.195	.097	.028	.188	.095	.027	.182	.093	.027	.177	.092	.027		
8.0	.185	.091	.025	.182	.090	.025	.176	.088	.025	.171	.087	.025	.166	.085	.025		
9.0	.174	.084	.023	.171	.083	.023	.166	.082	.023	.161	.081	.023	.156	.079	.023		
10.0	.163	.078	.022	.161	.078	.022	.156	.077	.022	.152	.075	.021	.148	.074	.021		

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	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.180	.156	.135	.154	.134	.116	.105	.092	.080	.060	.053	.047	.019	.017	.015	
2.0	.172	.132	.099	.147	.114	.085	.101	.079	.059	.058	.046	.035	.019	.015	.011	
3.0	.164	.114	.075	.141	.099	.065	.096	.068	.045	.056	.040	.027	.018	.013	.009	
4.0	.156	.101	.059	.134	.087	.051	.092	.061	.036	.053	.036	.021	.017	.012	.007	
5.0	.149	.091	.047	.128	.078	.041	.088	.055	.029	.051	.032	.017	.016	.010	.006	
6.0	.142	.082	.039	.122	.071	.034	.084	.050	.024	.049	.029	.014	.016	.010	.005	
7.0	.135	.075	.033	.116	.065	.029	.080	.046	.021	.047	.027	.012	.015	.009	.004	
8.0	.129	.069	.029	.111	.060	.025	.077	.042	.018	.045	.025	.011	.014	.008	.004	
9.0	.123	.065	.025	.106	.056	.022	.073	.039	.016	.043	.023	.009	.014	.008	.003	
10.0	.117	.060	.022	.101	.052	.020	.070	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:kaddy
 Test Date:2012-01-10

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
 Humidity:65.0%
 Test Distance:8.830m [K=1.0000]
 Remarks:



Uncorrected UGR Table

Test:U:220.1V I:0.2590A P:54.30W PF:0.9520 Lamp Flux:3941.88x1 lm											
NAME.: LED-S0312S2-056W-CW					TYPE:Cool White			WEIGHT:			
DIM.: 1200*300					SPEC.:56W			SERIAL No.:N001			
MFR.: LED Lighting					SUR.:0.256*1.156			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	17.5	19.0	17.8	19.2	19.4	17.7	19.2	18.0	19.4	19.6	
	3H	18.9	20.3	19.2	20.5	20.7	19.3	20.7	19.6	20.9	21.1
	4H	19.3	20.7	19.6	20.9	21.2	19.9	21.2	20.2	21.5	21.7
	6H	19.6	20.8	19.9	21.1	21.4	20.0	21.2	20.3	21.5	21.8
	8H	19.7	20.9	20.0	21.2	21.4	19.9	21.1	20.2	21.4	21.7
	12H	19.7	20.8	20.0	21.1	21.4	19.8	21.0	20.2	21.3	21.6
4H	2H	18.1	19.4	18.4	19.6	19.9	18.2	19.5	18.5	19.8	20.0
	3H	19.5	20.7	19.9	21.0	21.3	19.9	21.1	20.3	21.4	21.7
	4H	20.1	21.1	20.4	21.4	21.8	20.7	21.7	21.1	22.1	22.4
	6H	20.4	21.3	20.8	21.7	22.0	20.8	21.7	21.2	22.1	22.5
	8H	20.5	21.3	20.9	21.7	22.1	20.8	21.6	21.2	22.0	22.4
	12H	20.5	21.3	20.9	21.7	22.1	20.7	21.5	21.1	21.9	22.3
8H	4H	20.3	21.2	20.7	21.5	21.9	20.9	21.7	21.3	22.1	22.5
	6H	20.7	21.4	21.2	21.8	22.3	21.0	21.7	21.5	22.1	22.6
	8H	20.9	21.5	21.3	21.9	22.4	21.0	21.6	21.4	22.0	22.5
	12H	20.9	21.5	21.4	21.9	22.4	20.9	21.5	21.4	21.9	22.4
12H	4H	20.3	21.1	20.7	21.5	21.9	20.8	21.6	21.3	22.0	22.4
	6H	20.7	21.4	21.2	21.8	22.2	21.0	21.7	21.5	22.1	22.5
	8H	20.9	21.4	21.3	21.8	22.3	21.0	21.5	21.5	22.0	22.4
Variations with the observer position at spacings:											
S = 1.0H	+ 0.1 / - 0.2					+ 0.2 / - 0.2					
	+ 0.2 / - 0.3					+ 0.1 / - 0.2					
	+ 0.5 / - 0.7					+ 0.3 / - 0.4					

CIE Pub.117 Corrected 3942 lm Total Lamp Luminous Flux. (8log(F/F0) = 4.8)

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:kaddy
Test Date:2012-01-10

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:8.830m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.1V I:0.2590A P:54.30W PF:0.9520 Lamp Flux:3941.88x1 lm		
NAME: LED-S0312S2-056W-CW	TYPE:Cool White	WEIGHT:
DIM.: 1200*300	SPEC.:56W	SERIAL No.:N001
MFR.: LED Lighting	SUR.:0.256*1.156	PROTECTION ANGLE:

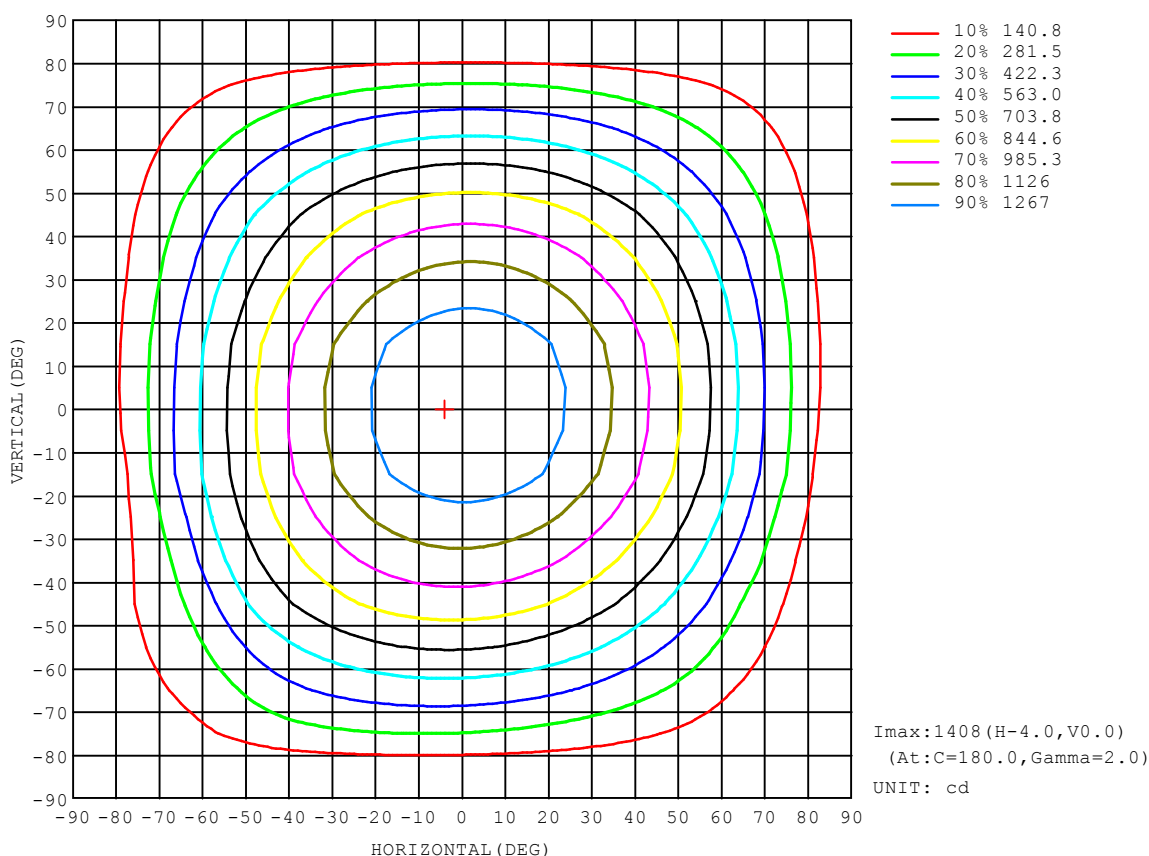
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	58	46	39	57	46	39	56	45	39	32
0.80	68	56	49	67	56	49	65	55	48	41
1.00	76	65	58	75	65	58	73	66	57	50
1.25	83	73	66	82	72	66	79	71	65	57
1.50	88	79	72	87	78	71	84	76	70	63
2.00	95	87	81	94	86	80	90	84	78	71
2.50	99	92	86	97	90	85	93	88	83	75
3.00	103	96	91	101	94	89	97	91	87	79
4.00	107	101	97	104	99	95	100	96	93	84
5.00	109	104	101	107	102	99	102	99	96	87
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:kaddy
Test Date:2012-01-10

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:8.830m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:220.1V I:0.2590A P:54.30W PF:0.9520 Lamp Flux:3941.88x1 lm		
NAME: LED-S0312S2-056W-CW	TYPE:Cool White	WEIGHT:
DIM.: 1200*300	SPEC.:56W	SERIAL No.:N001
MFR.: LED Lighting	SUR.:0.256*1.156	PROTECTION ANGLE:

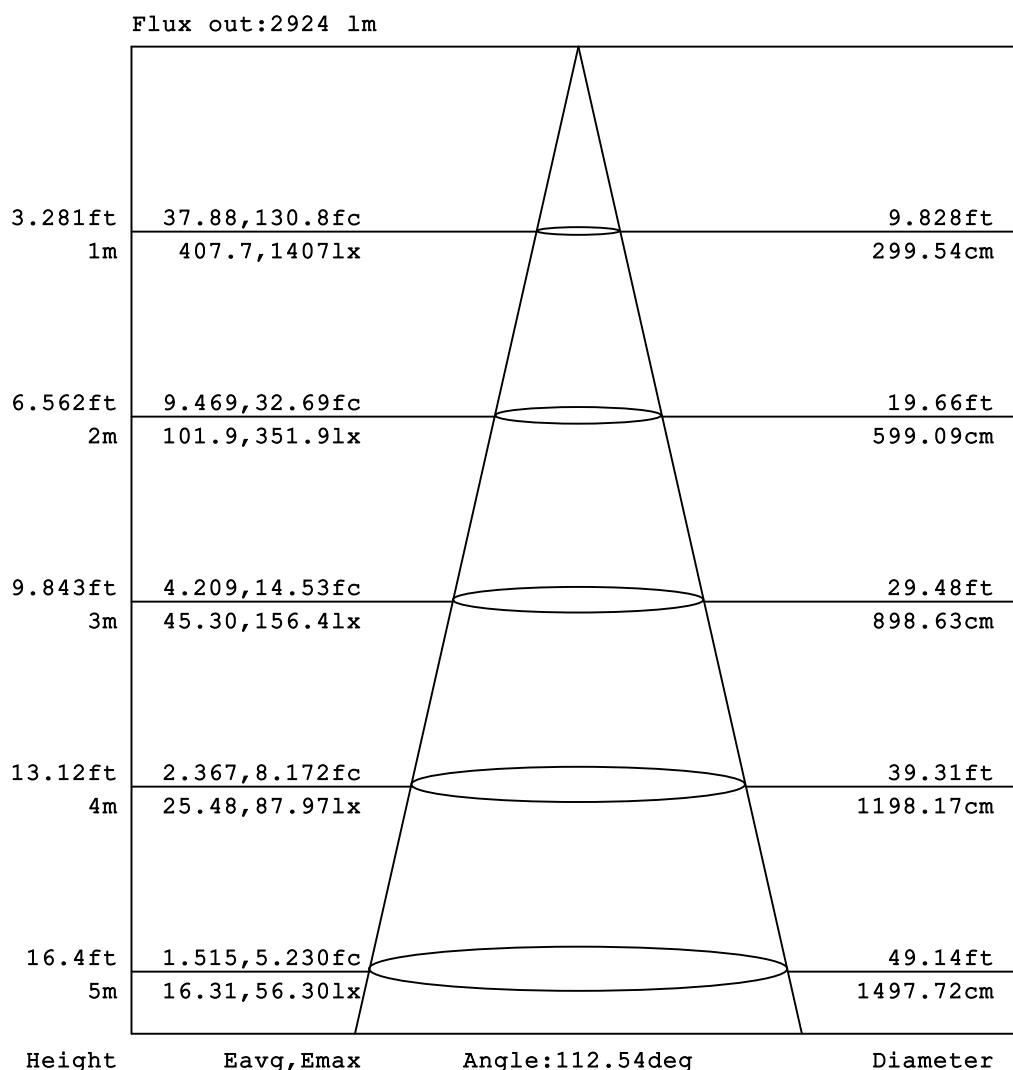


C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:kaddy
Test Date:2012-01-10

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:8.830m [K=1.0000]
Remarks:

AAI Figure

Test:U:220.1V I:0.2590A P:54.30W PF:0.9520 Lamp Flux:3941.88x1 lm		
NAME: LED-S0312S2-056W-CW	TYPE:Cool White	WEIGHT:
DIM.: 1200*300	SPEC.:56W	SERIAL No.:N001
MFR.: LED Lighting	SUR.:0.256*1.156	PROTECTION ANGLE:



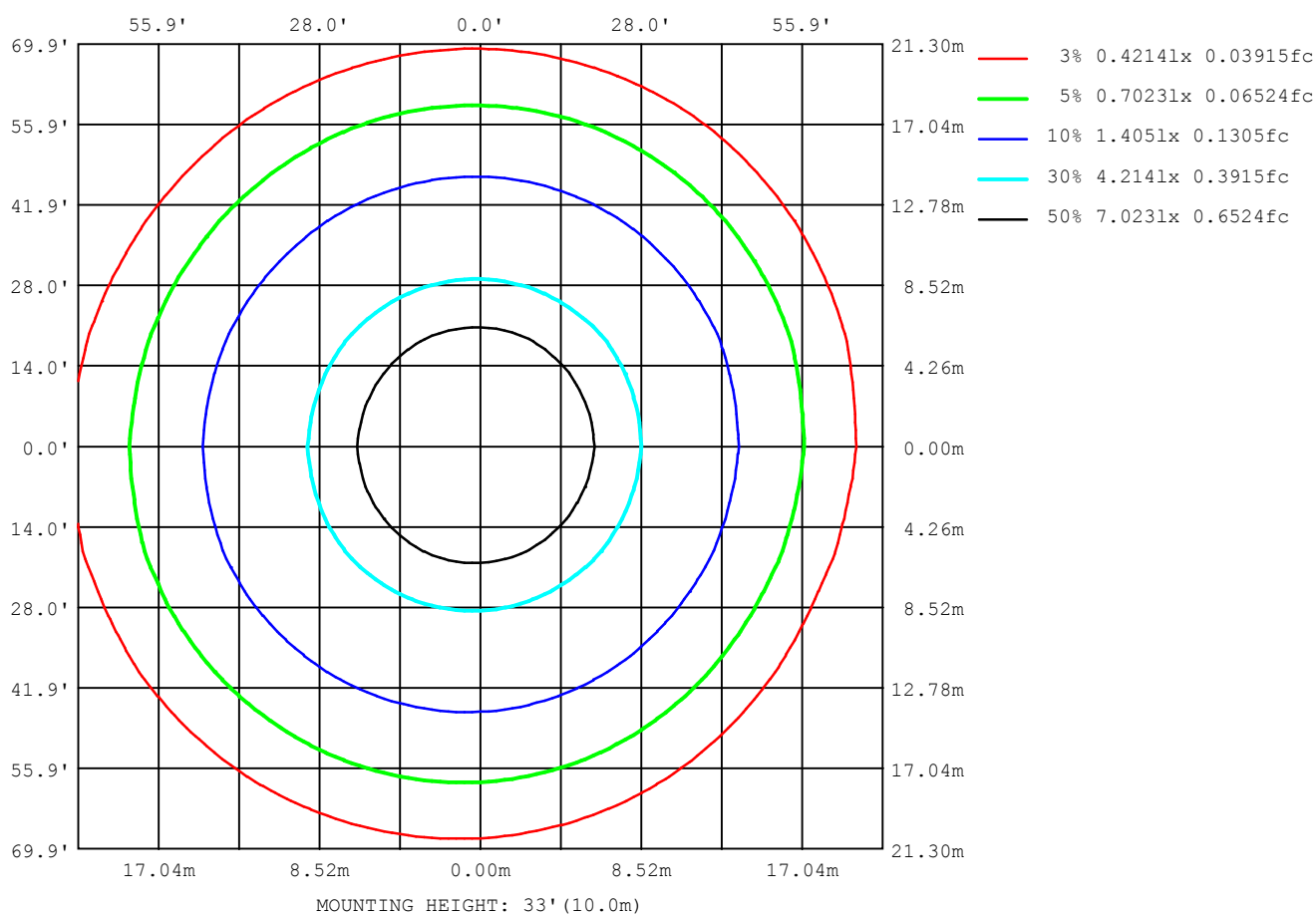
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:kaddy
Test Date:2012-01-10

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:8.830m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

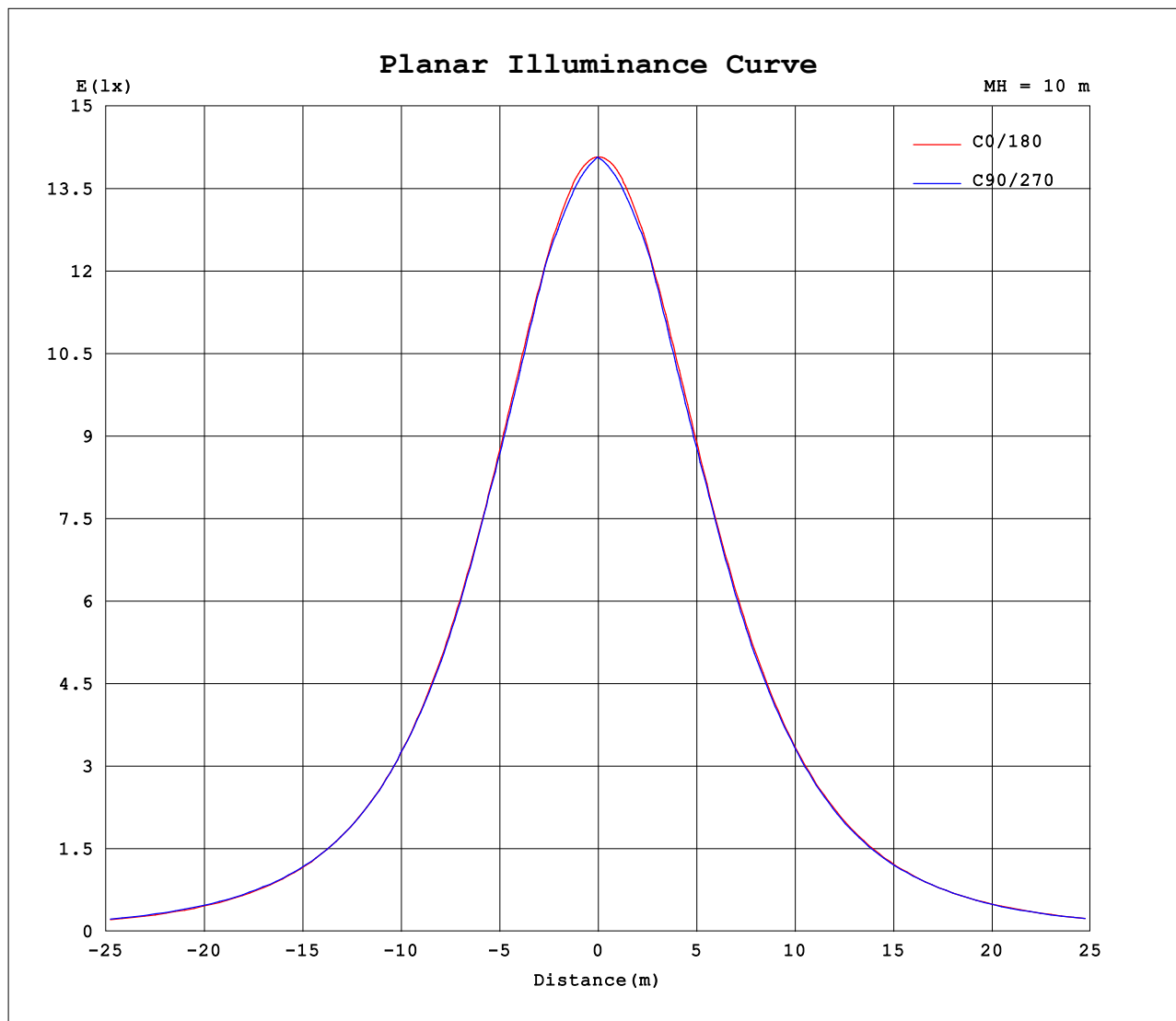
Test:U:220.1V I:0.2590A P:54.30W PF:0.9520 Lamp Flux:3941.88x1 lm		
NAME: LED-S0312S2-056W-CW	TYPE:Cool White	WEIGHT:
DIM.: 1200*300	SPEC.:56W	SERIAL No.:N001
MFR.: LED Lighting	SUR.:0.256*1.156	PROTECTION ANGLE:



C Range: 0 - 360DEG
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Test Speed: HIGH
Temperature:25.3DEG
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Test Date:2012-01-10

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:8.830m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: kaddy
 Test Date: 2012-01-10

γ Range: 0 - 90DEG
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 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.267
 Humidity: 65.0%
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 Remarks:

