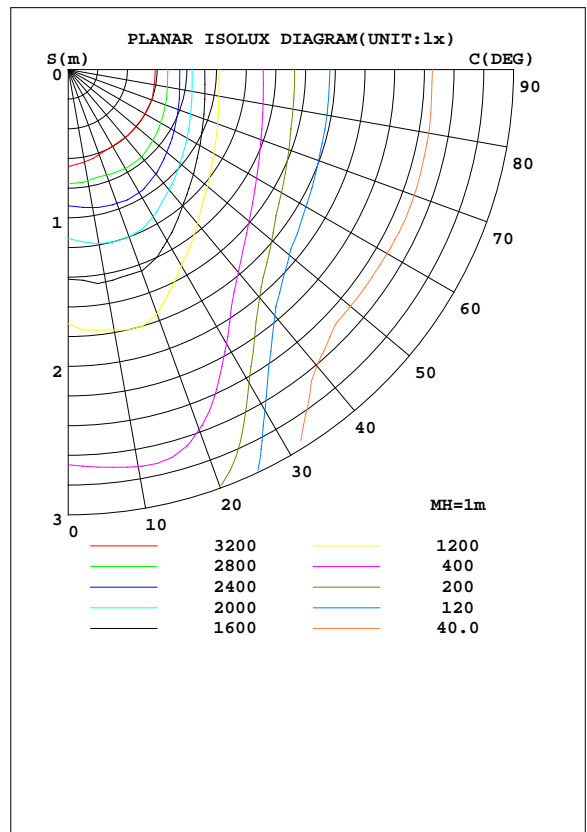
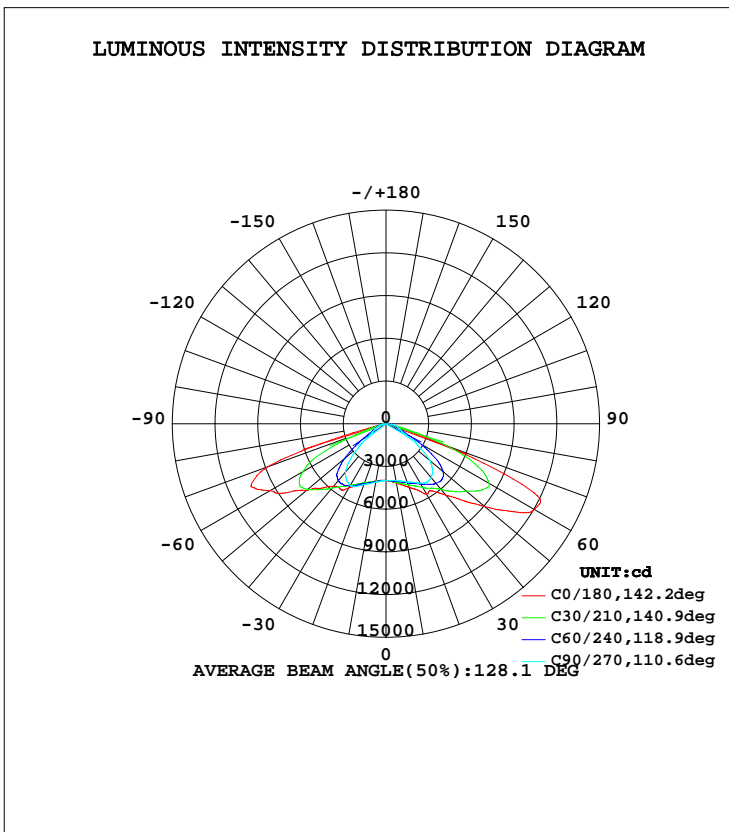


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.8V I:0.9648A P:208.1W PF:0.9765 Lamp Flux:22314.2x1 lm		
NAME: LED SHOE BOX LIGHT	TYPE:YHL-ST9-200	WEIGHT:
SPEC.:MEAN WELL	DIM.: 5000K	SERIAL No.:20170406
MFR.:	SUR.:70Ra	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 107.24 lm/W			
MODEL	NVSW219BT-V1 90PCS	Imax(cd)	12824	S/MH(C0/180)	2.90
NOMINAL POWER(W)	200	LOR(%)	100.0	S/MH(C90/270)	1.73
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	22314	η UP, DN(C0-180)	0.0, 47.4
NOMINAL FLUX(lm)	22314.2	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 52.6
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.75
TEST VOLTAGE(V)	220	η down(%)	100.0	CIBSE SHR MAX	1.75



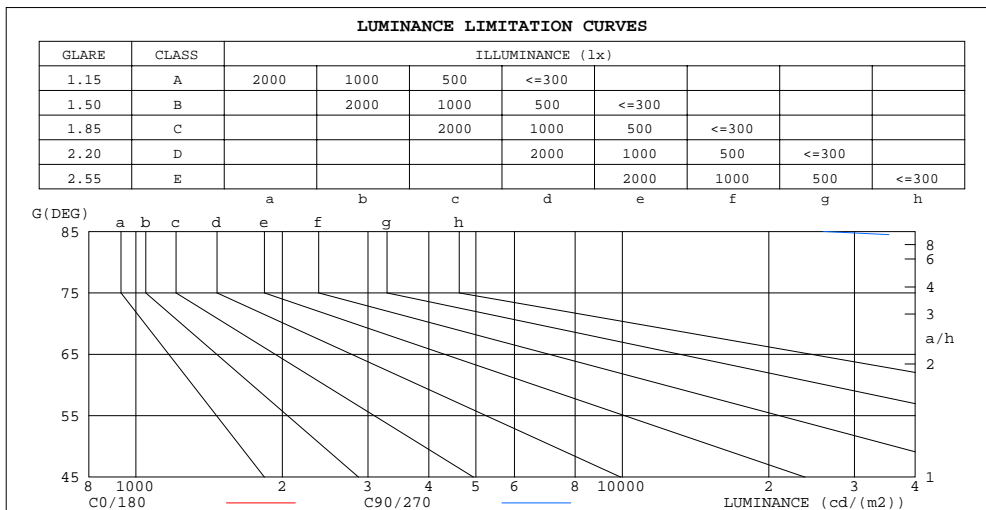
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:CHEN YU
 Test Date:2017-04-06

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:9.410m [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	lum, lamp
5	398.8	401.6	404.8	407.4	406.7	403.9	400.1	399.0	0- 5	95.89	95.89	0.43,0.43
10	408.4	411.2	416.5	421.3	423.2	415.0	405.9	406.1	5- 10	292.2	388.1	1.74,1.74
15	426.3	425.6	434.8	438.4	446.0	428.8	417.6	418.1	10- 15	500.2	888.3	3.98,3.98
20	449.6	444.6	453.7	461.6	475.9	445.0	435.6	433.8	15- 20	724.8	1613	7.23,7.23
25	482.7	468.6	484.5	491.3	511.4	469.0	454.8	455.3	20- 25	971.8	2585	11.6,11.6
30	519.0	500.7	503.3	530.1	571.2	499.4	482.6	483.1	25- 30	1249	3834	17.2,17.2
35	560.3	538.0	482.9	571.6	578.5	537.1	501.8	518.6	30- 35	1541	5375	24.1,24.1
40	575.2	572.8	444.4	601.3	655.2	582.8	494.5	558.1	35- 40	1826	7200	32.3,32.3
45	641.0	584.9	355.9	598.2	759.7	621.3	463.1	594.5	40- 45	2113	9313	41.7,41.7
50	727.4	552.5	234.2	536.0	904.4	643.3	402.8	612.5	45- 50	2350	11663	52.3,52.3
55	843.1	443.3	139.0	379.0	1073	585.1	292.1	560.1	50- 55	2478	14140	63.4,63.4
60	940.1	264.2	100.1	190.3	1204	458.7	174.0	431.0	55- 60	2485	16626	74.5,74.5
65	1046	114.6	85.06	95.23	1149	264.8	117.9	257.5	60- 65	2338	18964	85,85
70	880.3	69.45	65.12	64.84	382.9	120.1	94.70	117.7	65- 70	1857	20821	93.3,93.3
75	162.7	46.43	42.83	42.59	61.41	67.04	80.35	68.76	70- 75	972.2	21793	97.7,97.7
80	37.68	25.51	22.99	22.29	38.70	45.32	54.61	46.99	75- 80	340.3	22133	99.2,99.2
85	15.36	10.92	4.517	8.838	16.65	25.21	17.66	27.82	80- 85	153.4	22287	99.9,99.9
90	2.925	0	0	0	1.799	0	0	0	85- 90	27.64	22314	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:×10cd									UNIT:lm		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	88139	25912
80	108498	66198
75	314350	82746
70	1286877	95205
65	1237608	100635
60	940149	100067
55	734948	121157
50	565846	182142
45	453273	251659

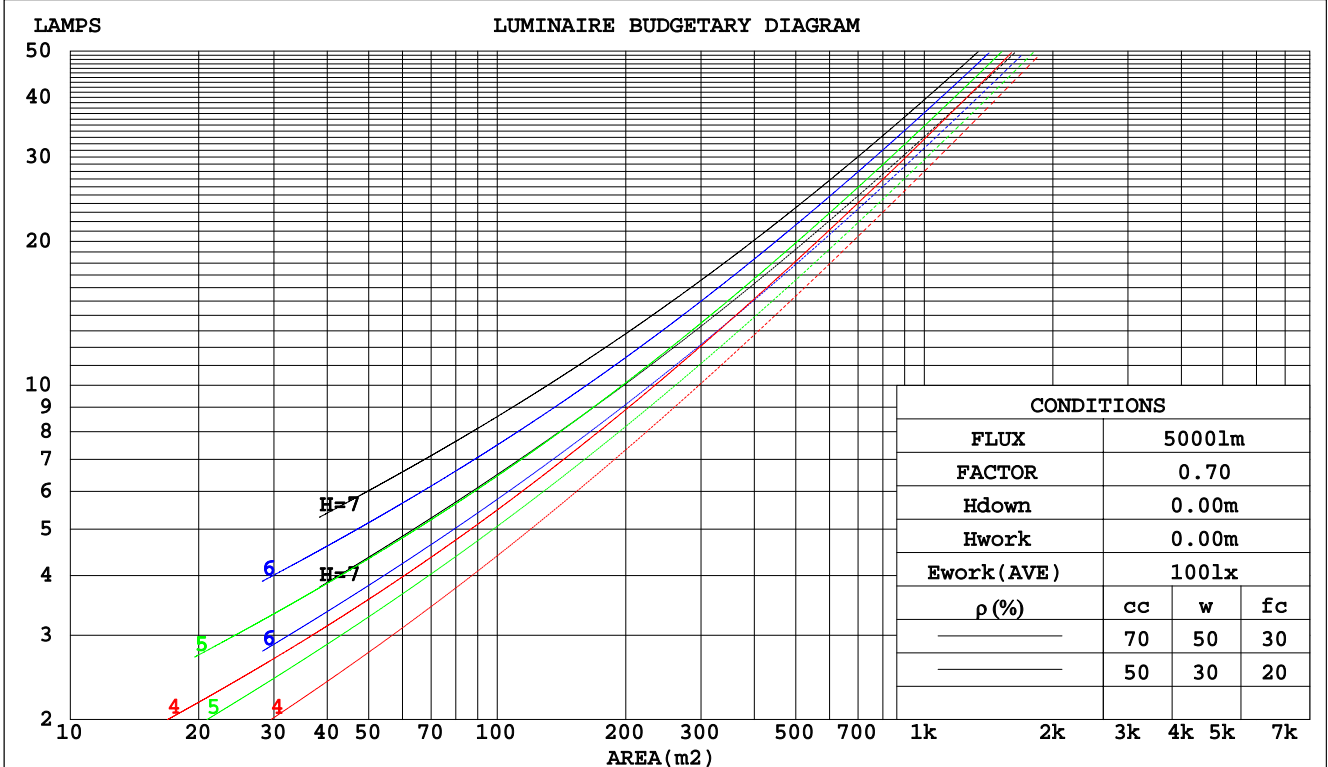
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:CHEN YU
Test Date:2017-04-06

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.287
Humidity:65.0%
Test Distance:9.410m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.8V I:0.9648A P:208.1W PF:0.9765 Lamp Flux:22314.2x1 lm		
NAME: LED SHOE BOX LIGHT	TYPE:YHL-ST9-200	WEIGHT:
SPEC.:MEAN WELL	DIM.: 5000K	SERIAL No.:20170406
MFR.:	SUR.:70Ra	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	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1.0	1.03	.99	.95	1.01	.97	.93	.97	.93	.90	.93	.90	.87	.89	.87	.85	.83
2.0	.88	.81	.75	.86	.80	.74	.83	.77	.72	.80	.75	.71	.76	.72	.69	.67
3.0	.76	.67	.60	.74	.66	.60	.71	.64	.58	.68	.62	.57	.66	.61	.56	.54
4.0	.66	.56	.49	.65	.56	.49	.62	.54	.48	.60	.53	.47	.57	.51	.47	.44
5.0	.58	.48	.41	.57	.47	.41	.54	.46	.40	.52	.45	.40	.50	.44	.39	.37
6.0	.51	.41	.34	.50	.41	.34	.48	.40	.34	.46	.39	.34	.45	.38	.33	.31
7.0	.46	.36	.30	.45	.36	.29	.43	.35	.29	.42	.34	.29	.40	.34	.29	.26
8.0	.41	.32	.26	.40	.32	.26	.39	.31	.25	.38	.30	.25	.36	.30	.25	.23
9.0	.37	.28	.22	.37	.28	.22	.35	.28	.22	.34	.27	.22	.33	.27	.22	.20
10.0	.34	.26	.20	.33	.25	.20	.32	.25	.20	.31	.25	.20	.31	.24	.20	.18



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:CHEN YU
 Test Date:2017-04-06

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:9.410m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:220.8V I:0.9648A P:208.1W PF:0.9765 Lamp Flux:22314.2x1 lm		
NAME: LED SHOE BOX LIGHT	TYPE:YHL-ST9-200	WEIGHT:
SPEC.:MEAN WELL	DIM.: 5000K	SERIAL No.:20170406
MFR.:	SUR.:70Ra	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	.322	.183	.058	.315	.179	.057	.301	.173	.055	.289	.167	.054	.278	.161	.052	
2.0	.312	.171	.052	.305	.168	.052	.293	.163	.051	.282	.158	.050	.272	.154	.049	
3.0	.291	.155	.046	.286	.153	.046	.275	.149	.045	.265	.145	.045	.256	.142	.044	
4.0	.270	.140	.041	.265	.139	.041	.255	.135	.040	.247	.132	.040	.238	.130	.039	
5.0	.249	.127	.037	.245	.126	.037	.236	.123	.036	.229	.121	.036	.221	.118	.036	
6.0	.231	.116	.033	.227	.115	.033	.219	.112	.033	.212	.110	.032	.206	.108	.032	
7.0	.214	.106	.030	.211	.105	.030	.204	.103	.030	.197	.101	.029	.192	.100	.029	
8.0	.199	.097	.027	.196	.097	.027	.190	.095	.027	.184	.093	.027	.179	.092	.027	
9.0	.186	.090	.025	.183	.089	.025	.178	.088	.025	.173	.087	.025	.168	.085	.025	
10.0	.174	.084	.023	.172	.083	.023	.167	.082	.023	.162	.081	.023	.158	.079	.023	

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	.181	.156	.133	.155	.134	.115	.106	.092	.079	.061	.053	.046	.020	.017	.015	
2.0	.175	.132	.096	.150	.113	.083	.103	.079	.058	.059	.046	.034	.019	.015	.011	
3.0	.169	.114	.071	.145	.099	.062	.099	.069	.043	.057	.040	.026	.018	.013	.008	
4.0	.162	.101	.055	.139	.088	.048	.096	.061	.034	.055	.036	.020	.018	.012	.007	
5.0	.155	.091	.044	.133	.079	.039	.092	.055	.027	.053	.032	.016	.017	.011	.005	
6.0	.148	.083	.037	.127	.072	.032	.088	.050	.023	.051	.030	.013	.016	.010	.004	
7.0	.141	.076	.031	.121	.066	.027	.084	.046	.019	.049	.027	.011	.016	.009	.004	
8.0	.135	.071	.027	.116	.061	.024	.080	.043	.017	.047	.025	.010	.015	.008	.003	
9.0	.128	.066	.024	.110	.057	.021	.077	.040	.015	.045	.024	.009	.014	.008	.003	
10.0	.122	.062	.021	.105	.053	.019	.073	.038	.013	.043	.022	.008	.014	.007	.003	

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:CHEN YU
 Test Date:2017-04-06

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:9.410m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:220.8V I:0.9648A P:208.1W PF:0.9765 Lamp Flux:22314.2x1 lm		
NAME: LED SHOE BOX LIGHT	TYPE:YHL-ST9-200	WEIGHT:
SPEC.:MEAN WELL	DIM.: 5000K	SERIAL No.:20170406
MFR.:	SUR.:70Ra	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	39.0	40.7	39.3	40.9	41.1	29.3	31.0	29.6	31.2	31.4
3H	42.6	44.2	42.9	44.4	44.7	29.7	31.2	30.0	31.5	31.7
4H	43.0	44.5	43.4	44.8	45.0	29.9	31.3	30.2	31.6	31.8
6H	43.0	44.3	43.3	44.6	44.9	29.9	31.3	30.3	31.6	31.9
8H	42.9	44.2	43.3	44.5	44.8	30.0	31.3	30.3	31.6	31.9
12H	42.9	44.1	43.2	44.4	44.7	29.9	31.2	30.3	31.5	31.8
4H 2H	38.8	40.3	39.1	40.5	40.8	31.3	32.7	31.6	33.0	33.2
3H	42.5	43.8	42.9	44.1	44.4	31.5	32.8	31.9	33.1	33.4
4H	43.0	44.2	43.4	44.5	44.8	31.7	32.9	32.1	33.2	33.5
6H	43.0	44.0	43.4	44.3	44.7	31.8	32.8	32.2	33.2	33.6
8H	42.9	43.9	43.3	44.2	44.6	31.8	32.8	32.2	33.1	33.5
12H	42.9	43.8	43.3	44.1	44.6	31.8	32.7	32.2	33.1	33.5
8H 4H	42.9	43.8	43.3	44.2	44.6	32.4	33.3	32.8	33.7	34.1
6H	42.8	43.6	43.3	44.0	44.5	32.5	33.3	33.0	33.7	34.2
8H	42.8	43.5	43.3	43.9	44.4	32.6	33.3	33.0	33.7	34.2
12H	42.8	43.4	43.3	43.8	44.3	32.6	33.2	33.1	33.6	34.1
12H 4H	42.8	43.7	43.3	44.1	44.5	32.4	33.3	32.8	33.6	34.1
6H	42.8	43.5	43.3	43.9	44.4	32.5	33.2	33.0	33.7	34.1
8H	42.8	43.4	43.3	43.8	44.3	32.6	33.2	33.1	33.6	34.1
Variations with the observer position at spacings:										
S = 1.0H	+ 0.4 / - 0.7					+ 1.5 / - 2.2				
1.5H	+ 0.9 / - 1.4					+ 1.1 / - 1.6				
2.0H	+ 0.9 / - 1.2					+ 2.6 / - 3.7				

CIE Pub.117 Corrected 22314 lm Total Lamp Luminous Flux.(8log(F/F0) = 10.8)

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:CHEN YU
 Test Date:2017-04-06

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:9.410m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.8V I:0.9648A P:208.1W PF:0.9765 Lamp Flux:22314.2x1 lm		
NAME: LED SHOE BOX LIGHT	TYPE:YHL-ST9-200	WEIGHT:
SPEC.:MEAN WELL	DIM.: 5000K	SERIAL No.:20170406
MFR.:	SUR.:70Ra	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	50	37	29	49	37	29	48	36	29	22
0.80	61	48	39	60	47	39	58	46	39	31
1.00	70	58	49	69	57	49	66	59	49	41
1.25	78	66	58	77	66	58	74	64	57	49
1.50	84	73	65	82	72	65	79	70	63	55
2.00	92	83	76	90	81	75	87	79	73	65
2.50	97	88	82	95	87	81	91	84	79	70
3.00	101	93	87	98	92	86	94	89	84	75
4.00	105	99	94	103	97	93	99	94	90	81
5.00	108	103	99	106	101	97	101	97	94	85
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:25DEG
 Operators:CHEN YU
 Test Date:2017-04-06

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:9.410m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

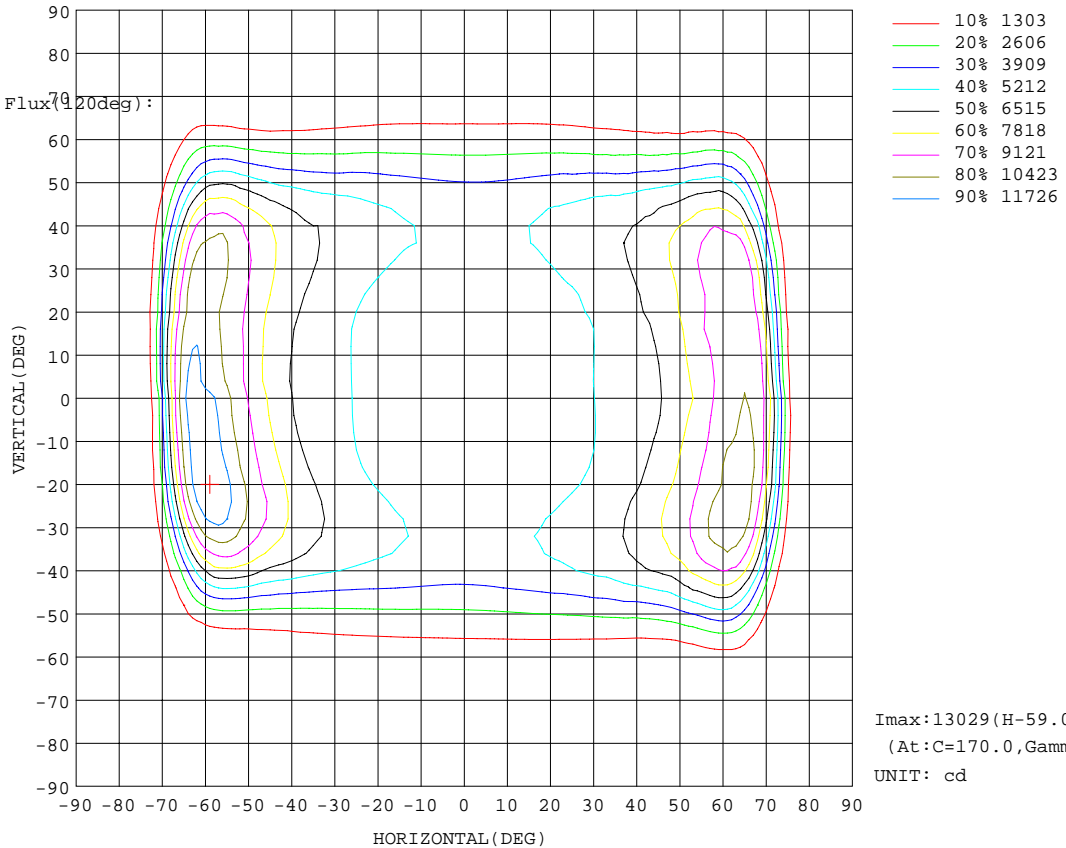
Test:U:220.8V I:0.9648A P:208.1W PF:0.9765 Lamp Flux:22314.2x1 lm		
NAME: LED SHOE BOX LIGHT	TYPE:YHL-ST9-200	WEIGHT:
SPEC.:MEAN WELL	DIM.: 5000K	SERIAL No.:20170406
MFR.:	SUR.:70Ra	PROTECTION ANGLE:

Conical surface Flux(90deg):

9313 lm
%lum = 41.7%
%lamp = 41.7%

Conical surface Flux(70deg):

16626 lm
%lum = 74.5%
%lamp = 74.5%



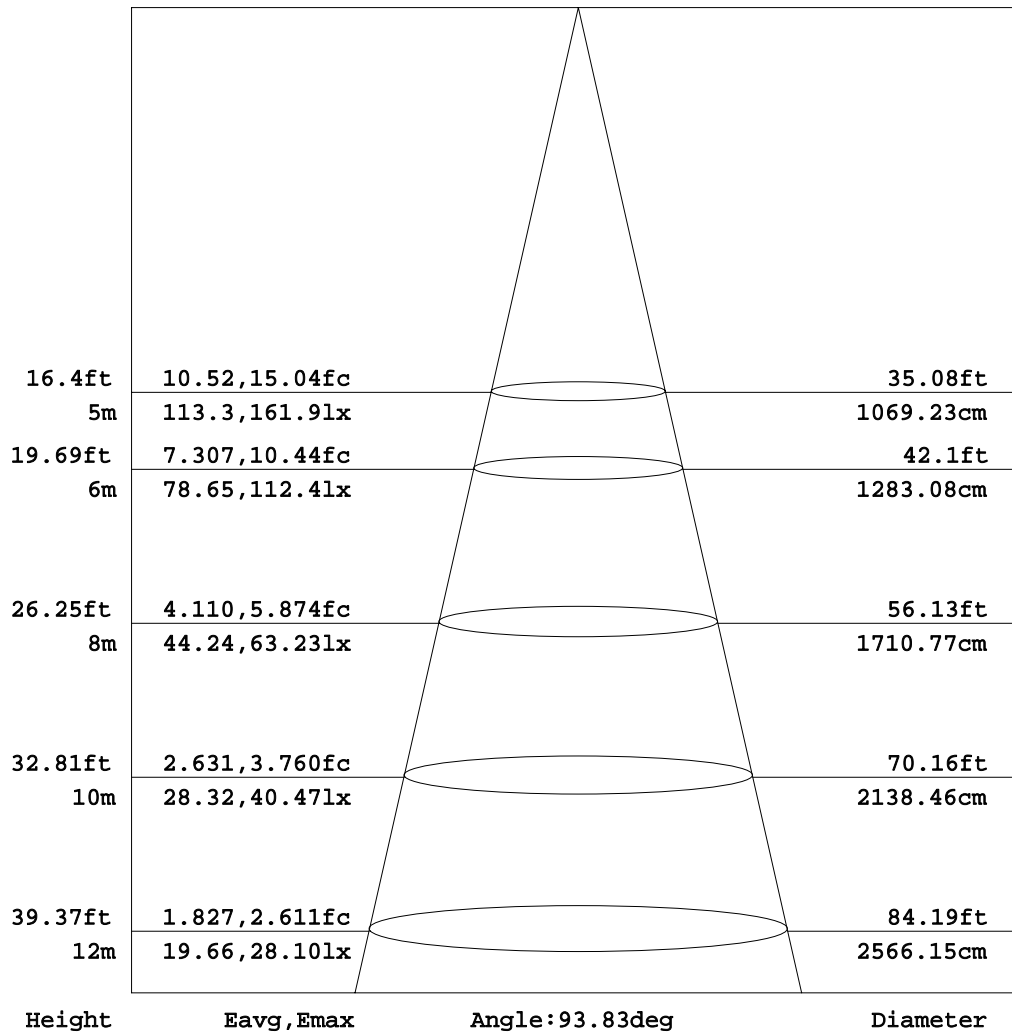
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:CHEN YU
Test Date:2017-04-06

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.287
Humidity:65.0%
Test Distance:9.410m [K=1.0000]
Remarks:

AAI Figure

Test:U:220.8V I:0.9648A P:208.1W PF:0.9765 Lamp Flux:22314.2x1 lm		
NAME: LED SHOE BOX LIGHT	TYPE:YHL-ST9-200	WEIGHT:
SPEC.:MEAN WELL	DIM.: 5000K	SERIAL No.:20170406
MFR.:	SUR.:70Ra	PROTECTION ANGLE:

Flux out:10230 lm



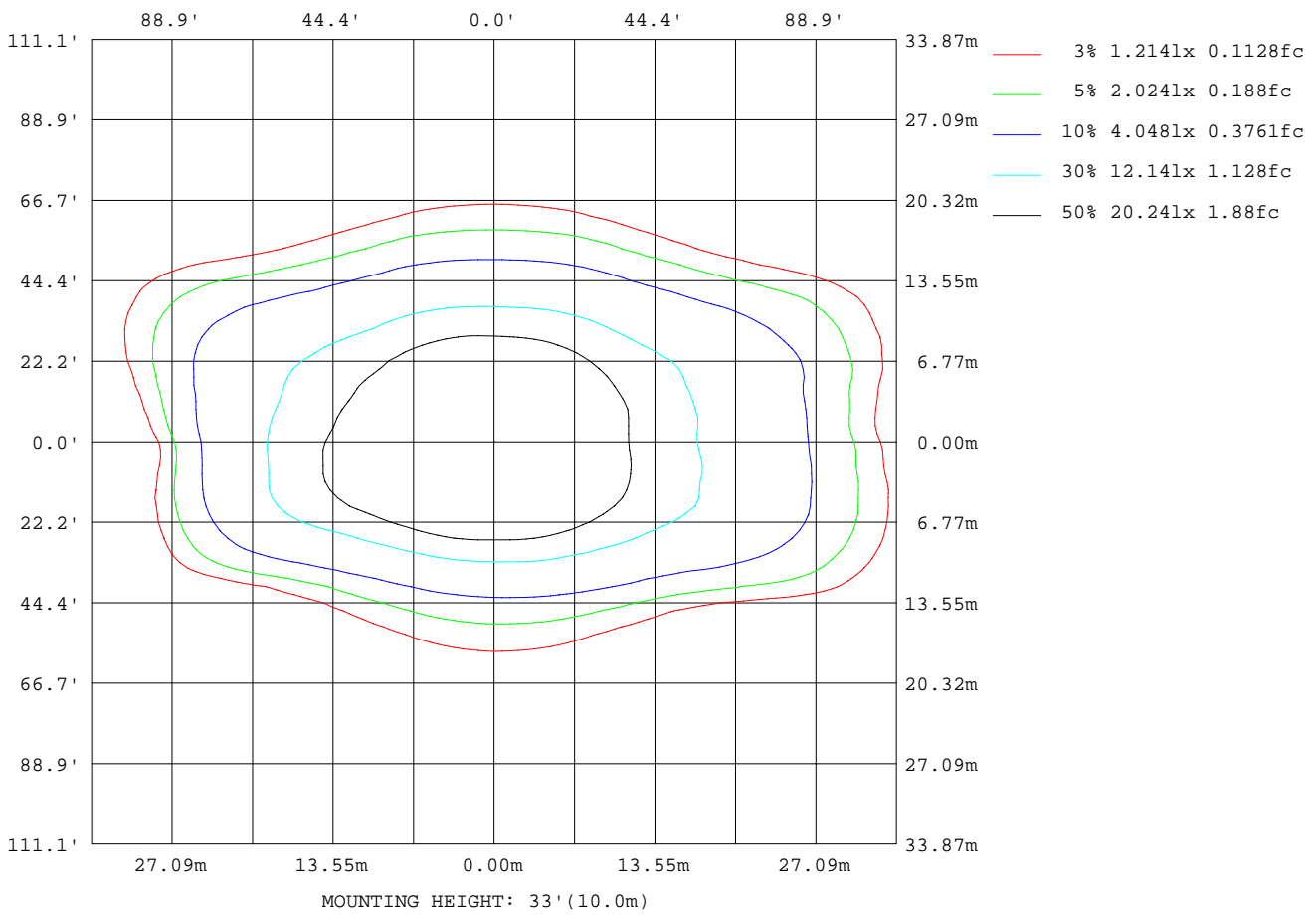
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:CHEN YU
 Test Date:2017-04-06

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:9.410m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

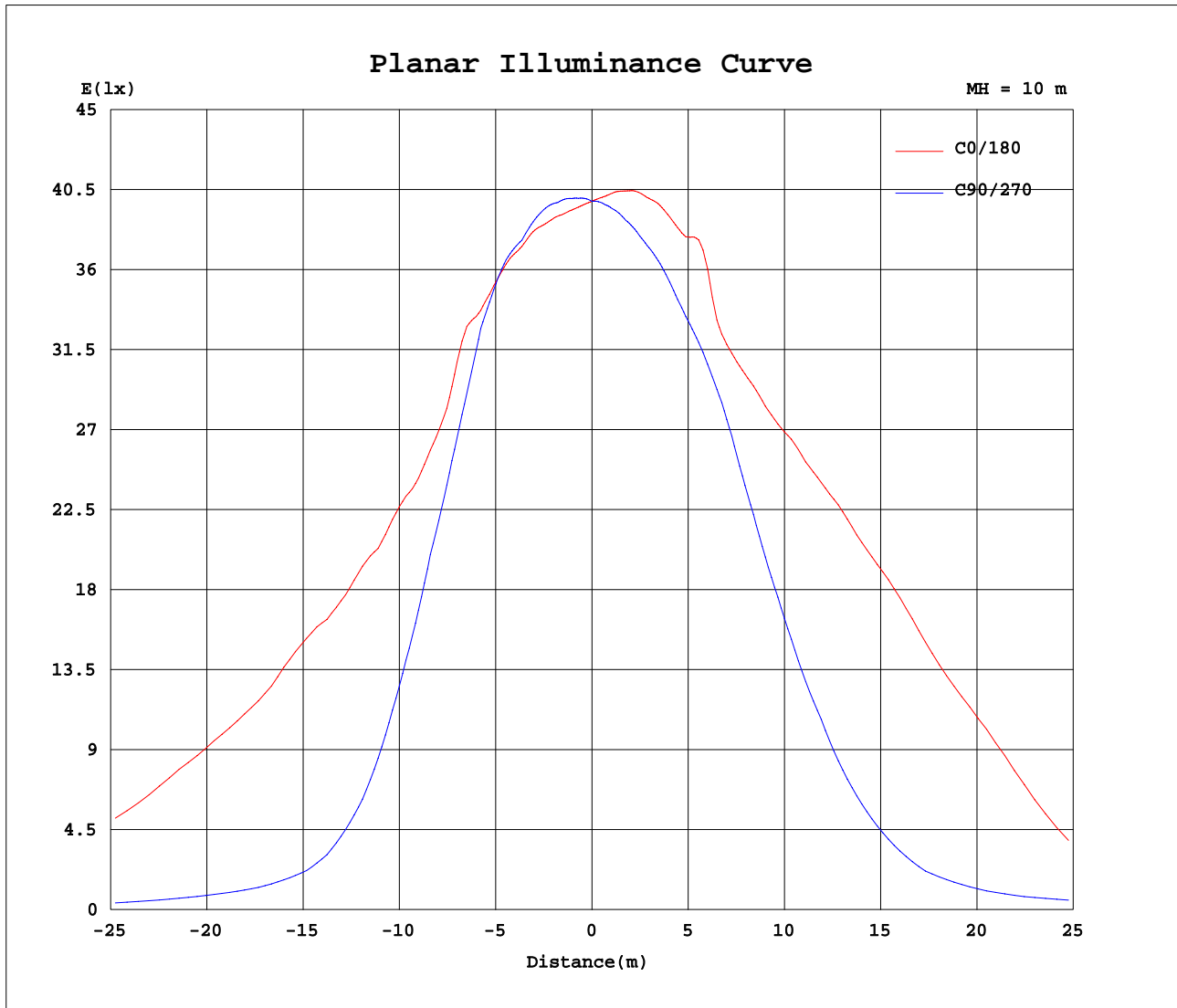
Test:U:220.8V I:0.9648A P:208.1W PF:0.9765 Lamp Flux:22314.2x1 lm		
NAME: LED SHOE BOX LIGHT	TYPE:YHL-ST9-200	WEIGHT:
SPEC.:MEAN WELL	DIM.: 5000K	SERIAL No.:20170406
MFR.:	SUR.:70Ra	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:CHEN YU
 Test Date:2017-04-06

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:9.410m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators: CHEN YU
 Test Date: 2017-04-06

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.287
 Humidity: 65.0%
 Test Distance: 9.410m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.8V I:0.9648A P:208.1W PF:0.9765 Lamp Flux:22314.2x1 lm		
NAME: LED SHOE BOX LIGHT	TYPE:YHL-ST9-200	WEIGHT:
SPEC.:MEAN WELL	DIM.: 5000K	SERIAL No.:20170406
MFR.:	SUR.:70Ra	PROTECTION ANGLE:

Table--2

UNIT: x10cd

C(DEG) γ (DEG)	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185
0	398	398	398	398	398	398	398	398	398	398	398	398	398	398	398	398	398	398	398
5	405	406	406	406	407	407	407	407	407	408	408	408	408	408	408	407	407	407	407
10	417	418	419	419	420	420	421	421	421	422	422	422	422	423	423	424	424	423	423
15	436	437	437	437	438	438	438	439	438	438	439	440	441	442	443	445	446	446	446
20	455	457	458	459	460	460	460	461	462	462	462	462	464	467	470	472	475	476	475
25	487	489	491	490	487	486	488	489	491	493	494	496	499	502	506	508	511	511	510
30	505	509	512	512	513	517	522	527	530	532	535	537	540	544	548	555	563	571	570
35	486	493	504	514	525	538	552	561	572	580	585	588	588	587	586	583	580	578	574
40	447	456	468	485	505	529	553	576	601	621	640	655	666	668	668	664	658	655	641
45	358	367	384	405	433	470	510	550	598	643	692	728	758	778	782	780	772	760	727
50	234	241	255	277	307	346	394	455	536	612	705	785	860	908	921	925	924	904	862
55	139	141	147	159	177	199	233	295	379	489	629	773	932	1042	1093	1098	1085	1073	1008
60	99.5	100	102	105	108	112	125	151	190	281	430	645	888	1114	1265	1273	1248	1204	1133
65	84.5	84.5	84.6	84.7	84.8	84.8	85.2	89.2	95.2	119	183	357	630	900	1093	1149	1116	1149	1115
70	64.6	65.6	66.7	67.3	67.1	66.4	65.7	64.9	64.8	66.7	76.8	113	231	406	474	480	417	383	566
75	42.8	42.8	42.9	44.5	45.8	45.3	44.6	43.5	42.6	42.9	44.2	48.2	60.4	79.7	85.3	79.8	68.3	61.4	80.9
80	23.0	22.9	22.4	22.4	22.9	22.7	22.7	22.3	22.3	23.5	24.5	25.1	27.0	30.3	34.4	35.0	42.1	38.7	41.3
85	4.57	4.82	5.10	5.51	6.18	6.91	7.88	8.38	8.84	9.07	9.33	9.34	10.1	11.7	12.9	12.6	12.4	16.7	21.2
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.80	0.00

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:CHEN YU
 Test Date:2017-04-06

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.287
 Humidity:65.0%
 Test Distance:9.410m [K=1.0000]
 Remarks:

