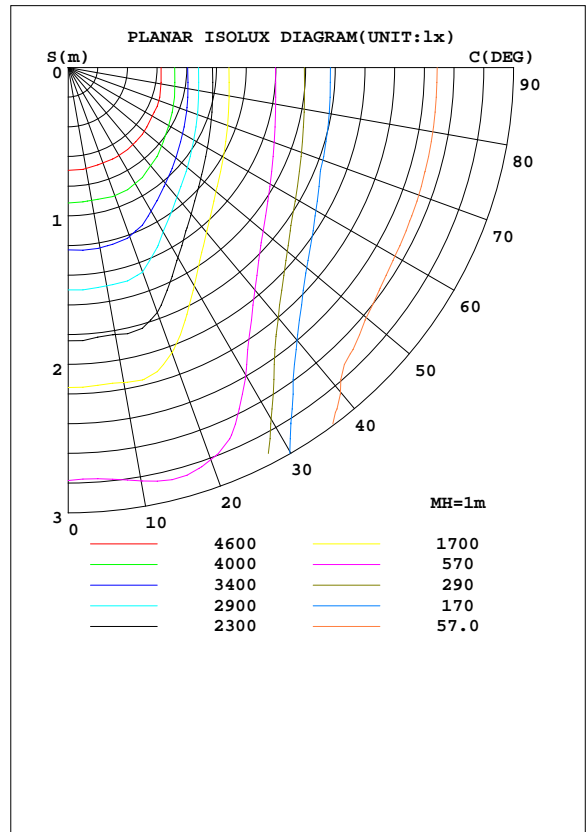
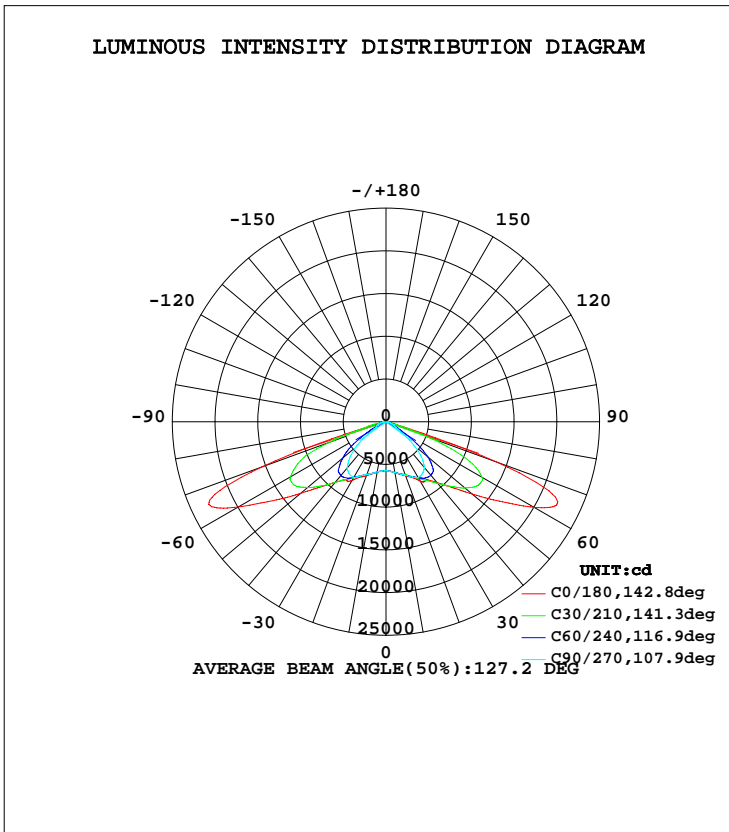


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.8V I:1.366A P:297.3W PF:0.9855 Lamp Flux:35471x1 lm		
NAME: SHOE BOX	TYPE:YHL-ST9-300	WEIGHT:
SPEC.:MEAN WELL	DIM.: 5000K	SERIAL No.:20170427
MFR.:	SUR.:70Ra	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 119.30 lm/W			
MODEL	NVSW219CT 120PCS	I _{max} (cd)	22939	S/MH(C0/180)	3.07
NOMINAL POWER(W)	298.4	LOR(%)	100.0	S/MH(C90/270)	1.59
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	35471	η UP, DN(C0-180)	0.0, 50.4
NOMINAL FLUX(lm)	35471	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 49.6
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



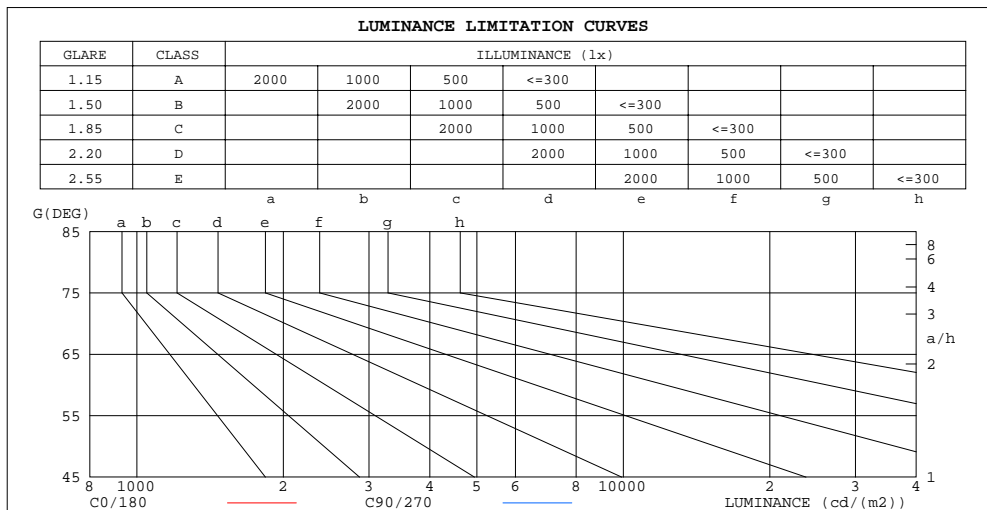
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:CHEN YU
 Test Date:2017-04-27

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	579.2	579.8	579.3	580.5	581.5	583.3	582.8	582.2	0- 5	138.2	138.2	0.39,0.39
10	599.7	598.2	596.8	598.5	604.2	603.2	602.6	601.4	5- 10	423.0	561.2	1.58,1.58
15	631.3	624.7	626.6	624.1	636.5	629.8	633.4	628.3	10- 15	730.2	1291	3.64,3.64
20	670.9	657.5	658.0	655.0	673.5	664.6	665.7	663.8	15- 20	1065	2356	6.64,6.64
25	716.1	699.8	699.5	695.9	719.8	708.3	711.5	707.0	20- 25	1436	3792	10.7,10.7
30	793.3	754.2	756.8	750.0	801.3	764.0	756.8	763.9	25- 30	1860	5652	15.9,15.9
35	829.6	823.5	748.5	820.3	830.4	832.0	742.5	831.3	30- 35	2324	7976	22.5,22.5
40	925.7	898.8	709.8	900.5	928.4	900.4	701.7	893.2	35- 40	2779	10755	30.3,30.3
45	1078	938.2	602.2	934.5	1084	934.6	590.9	922.1	40- 45	3244	13998	39.5,39.5
50	1303	923.7	464.1	901.8	1316	919.4	424.6	892.5	45- 50	3633	17632	49.7,49.7
55	1609	782.1	268.4	717.0	1620	759.5	237.6	725.2	50- 55	3893	21525	60.7,60.7
60	1995	582.1	140.0	457.0	2004	490.6	129.9	455.8	55- 60	4023	25548	72,72
65	2288	282.3	121.5	187.0	2218	202.5	105.2	195.0	60- 65	4064	29613	83.5,83.5
70	1546	133.9	101.9	97.90	1371	94.21	88.09	96.44	65- 70	3511	33124	93.4,93.4
75	122.1	86.70	79.64	69.92	119.5	62.63	57.47	64.74	70- 75	1662	34786	98.1,98.1
80	46.59	56.61	49.88	43.52	44.46	37.92	35.09	39.33	75- 80	440.1	35226	99.3,99.3
85	33.47	31.42	16.36	20.25	26.94	15.69	9.858	16.12	80- 85	203.0	35429	99.9,99.9
90	0.6192	0	0	0	1.251	0	0	0	85- 90	42.02	35471	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	192037	93879
80	134150	143633
75	235862	153852
70	2259371	148959
65	2706994	143799
60	1994865	139962
55	1402726	233947
50	1013609	361030
45	762378	425797

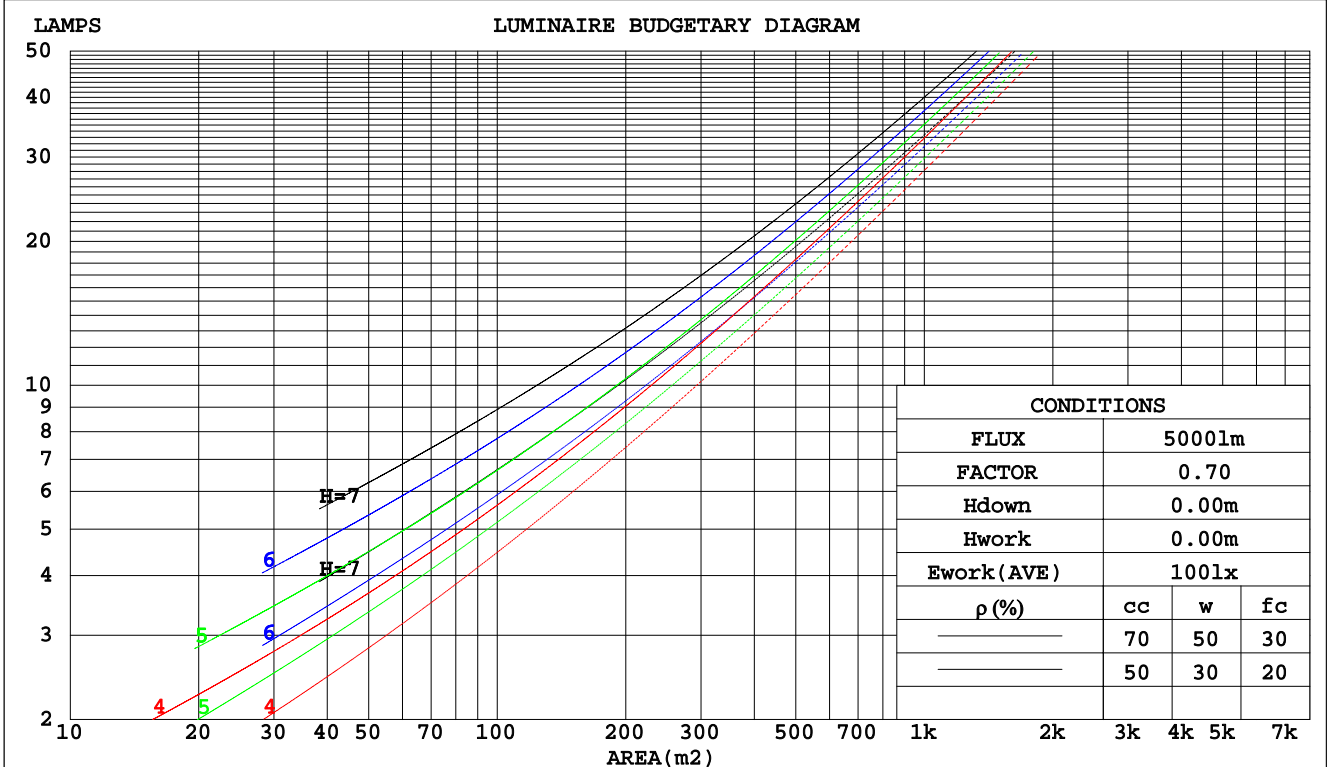
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:CHEN YU
Test Date:2017-04-27

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:1.366A P:297.3W PF:0.9855 Lamp Flux:3547lx1 lm		
NAME: SHOE BOX	TYPE:YHL-ST9-300	WEIGHT:
SPEC.:MEAN WELL	DIM.: 5000K	SERIAL No.:20170427
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																
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	1.00
1.0	1.03	.98	.94	1.01	.97	.93	.96	.93	.90	.92	.90	.87	.89	.87	.84	.82
2.0	.88	.80	.74	.86	.79	.73	.82	.76	.71	.79	.74	.70	.76	.72	.68	.66
3.0	.75	.66	.59	.74	.65	.58	.70	.63	.57	.68	.61	.56	.65	.60	.55	.53
4.0	.65	.55	.48	.64	.54	.47	.61	.53	.47	.59	.52	.46	.56	.50	.45	.43
5.0	.57	.47	.39	.56	.46	.39	.53	.45	.39	.51	.44	.38	.49	.43	.38	.35
6.0	.50	.40	.33	.49	.40	.33	.47	.39	.33	.45	.38	.32	.44	.37	.32	.30
7.0	.45	.35	.28	.44	.35	.28	.42	.34	.28	.41	.33	.28	.39	.32	.27	.25
8.0	.40	.31	.24	.39	.31	.24	.38	.30	.24	.37	.29	.24	.35	.29	.24	.22
9.0	.36	.27	.21	.36	.27	.21	.35	.27	.21	.33	.26	.21	.32	.26	.21	.19
10.0	.33	.25	.19	.33	.24	.19	.32	.24	.19	.31	.24	.19	.30	.23	.19	.17



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:CHEN YU
 Test Date:2017-04-27

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:1.366A P:297.3W PF:0.9855 Lamp Flux:3547lx1 lm		
NAME: SHOE BOX	TYPE:YHL-ST9-300	WEIGHT:
SPEC.:MEAN WELL	DIM.: 5000K	SERIAL No.:20170427
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	.327	.186	.059	.320	.183	.058	.307	.176	.056	.295	.170	.055	.283	.164	.053	
2.0	.318	.174	.053	.311	.171	.053	.299	.166	.052	.288	.162	.051	.278	.157	.050	
3.0	.297	.158	.047	.291	.156	.047	.281	.152	.046	.271	.148	.046	.262	.145	.045	
4.0	.275	.143	.042	.270	.141	.042	.260	.138	.041	.251	.135	.041	.243	.132	.040	
5.0	.253	.129	.037	.249	.128	.037	.240	.125	.037	.233	.123	.036	.225	.120	.036	
6.0	.234	.117	.034	.230	.116	.033	.223	.114	.033	.215	.112	.033	.209	.110	.033	
7.0	.217	.107	.030	.213	.106	.030	.207	.104	.030	.200	.103	.030	.194	.101	.030	
8.0	.202	.099	.028	.198	.098	.028	.192	.096	.027	.187	.095	.027	.181	.093	.027	
9.0	.188	.091	.025	.185	.090	.025	.180	.089	.025	.175	.087	.025	.170	.086	.025	
10.0	.176	.084	.023	.173	.084	.023	.168	.083	.023	.164	.081	.023	.159	.080	.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	.182	.156	.133	.155	.134	.114	.106	.092	.079	.061	.053	.046	.020	.017	.015	
2.0	.176	.132	.095	.150	.113	.082	.103	.078	.057	.059	.046	.034	.019	.015	.011	
3.0	.170	.114	.070	.145	.099	.061	.100	.069	.043	.058	.040	.025	.019	.013	.008	
4.0	.163	.102	.055	.140	.088	.047	.096	.061	.033	.056	.036	.020	.018	.012	.006	
5.0	.156	.092	.044	.134	.079	.038	.092	.055	.027	.054	.032	.016	.017	.011	.005	
6.0	.149	.083	.036	.128	.072	.032	.088	.051	.022	.051	.030	.013	.017	.010	.004	
7.0	.142	.077	.031	.122	.066	.027	.085	.047	.019	.049	.027	.011	.016	.009	.004	
8.0	.136	.071	.027	.117	.062	.023	.081	.043	.016	.047	.026	.010	.015	.008	.003	
9.0	.129	.066	.024	.111	.057	.021	.077	.040	.015	.045	.024	.009	.015	.008	.003	
10.0	.123	.062	.021	.106	.054	.018	.074	.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:2017-04-27

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:1.366A P:297.3W PF:0.9855 Lamp Flux:35471x1 lm		
NAME: SHOE BOX	TYPE:YHL-ST9-300	WEIGHT:
SPEC.:MEAN WELL	DIM.: 5000K	SERIAL No.:20170427
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	42.0	43.7	42.3	43.9	44.1	31.5	33.2	31.8	33.4	33.6
3H	45.6	47.2	45.9	47.4	47.7	31.7	33.3	32.1	33.6	33.8
4H	45.7	47.2	46.0	47.5	47.7	31.9	33.4	32.3	33.7	34.0
6H	45.6	47.0	46.0	47.3	47.6	32.1	33.5	32.5	33.8	34.1
8H	45.6	46.9	45.9	47.2	47.5	32.2	33.5	32.5	33.8	34.1
12H	45.5	46.8	45.9	47.1	47.4	32.2	33.5	32.6	33.8	34.2
4H 2H	41.8	43.3	42.1	43.6	43.8	33.9	35.4	34.3	35.7	36.0
3H	45.6	46.9	46.0	47.2	47.5	34.1	35.4	34.4	35.7	36.0
4H	45.9	47.1	46.3	47.4	47.7	34.2	35.4	34.6	35.7	36.1
6H	45.8	46.9	46.2	47.2	47.6	34.4	35.4	34.8	35.8	36.2
8H	45.8	46.8	46.2	47.1	47.5	34.5	35.4	34.9	35.8	36.2
12H	45.8	46.6	46.2	47.0	47.4	34.5	35.4	34.9	35.8	36.2
8H 4H	45.8	46.7	46.2	47.1	47.5	35.4	36.4	35.8	36.7	37.1
6H	45.7	46.5	46.2	46.9	47.4	35.6	36.4	36.0	36.8	37.2
8H	45.7	46.4	46.2	46.8	47.3	35.7	36.4	36.2	36.8	37.3
12H	45.7	46.3	46.2	46.7	47.2	35.8	36.4	36.3	36.8	37.3
12H 4H	45.7	46.6	46.1	47.0	47.4	35.4	36.3	35.8	36.7	37.1
6H	45.7	46.4	46.2	46.8	47.3	35.6	36.3	36.1	36.7	37.2
8H	45.7	46.3	46.2	46.7	47.2	35.8	36.4	36.2	36.8	37.3
Variations with the observer position at spacings:										
S = 1.0H	+ 0.3 / - 0.4					+ 1.2 / - 1.4				
1.5H	+ 0.9 / - 1.6					+ 0.8 / - 0.7				
2.0H	+ 1.4 / - 2.4					+ 2.0 / - 4.0				

CIE Pub.117 Corrected 35471 lm Total Lamp Luminous Flux.(8log(F/F0) = 12.4)

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:CHEN YU
 Test Date:2017-04-27

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:1.366A P:297.3W PF:0.9855 Lamp Flux:3547lx1 lm		
NAME: SHOE BOX	TYPE:YHL-ST9-300	WEIGHT:
SPEC.:MEAN WELL	DIM.: 5000K	SERIAL No.:20170427
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	49	36	28	48	36	28	47	35	28	20
0.80	60	46	38	58	46	38	57	45	37	29
1.00	69	56	48	68	56	48	65	58	47	39
1.25	77	65	57	76	64	56	73	63	56	47
1.50	83	72	64	81	71	63	78	69	62	54
2.00	91	82	74	89	80	74	86	78	72	63
2.50	96	87	81	94	86	80	90	83	78	69
3.00	100	93	87	98	91	85	94	88	83	74
4.00	105	99	94	103	97	92	98	94	90	81
5.00	108	103	99	105	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:2017-04-27

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

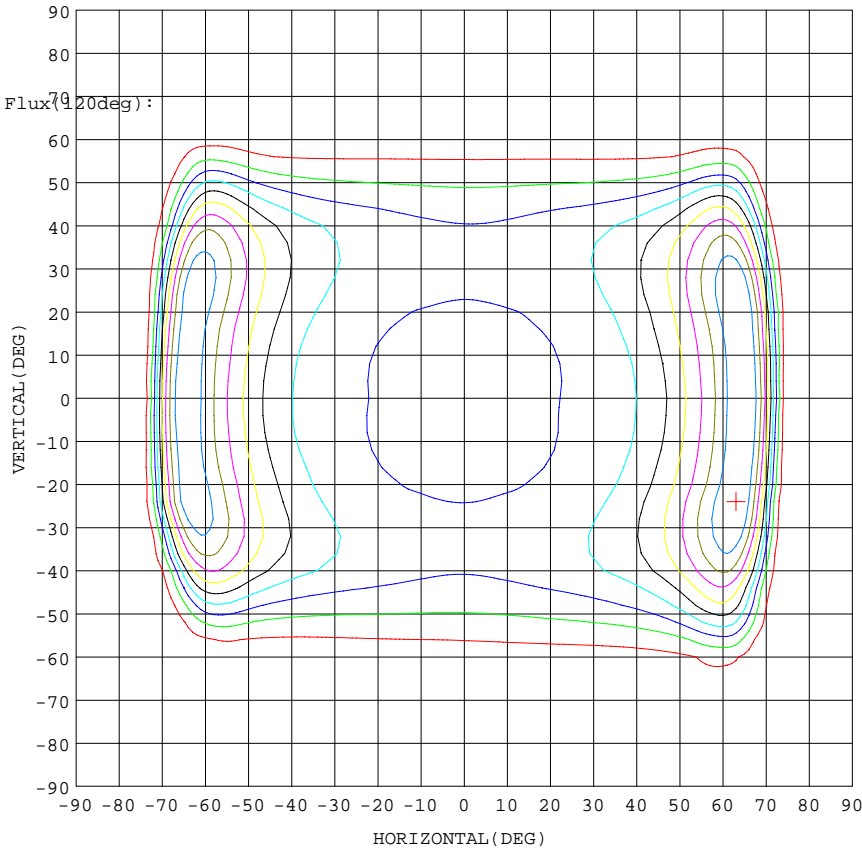
Test:U:220.8V I:1.366A P:297.3W PF:0.9855 Lamp Flux:3547lx1 lm		
NAME: SHOE BOX	TYPE:YHL-ST9-300	WEIGHT:
SPEC.:MEAN WELL	DIM.: 5000K	SERIAL No.:20170427
MFR.:	SUR.:70Ra	PROTECTION ANGLE:

Conical surface Flux(90deg):

13998 lm
 %lum = 39.5%
 %lamp = 39.5%

Conical surface Flux(70deg):

25548 lm
 %lum = 72.0%
 %lamp = 72.0%



- 10% 2308
- 20% 4616
- 30% 6923
- 40% 9231
- 50% 11539
- 60% 13847
- 70% 16155
- 80% 18463
- 90% 20770

Imax: 23078 (H63.0, V-24.0)
 (At: C=350.0, Gamma=65.0)
 UNIT: cd

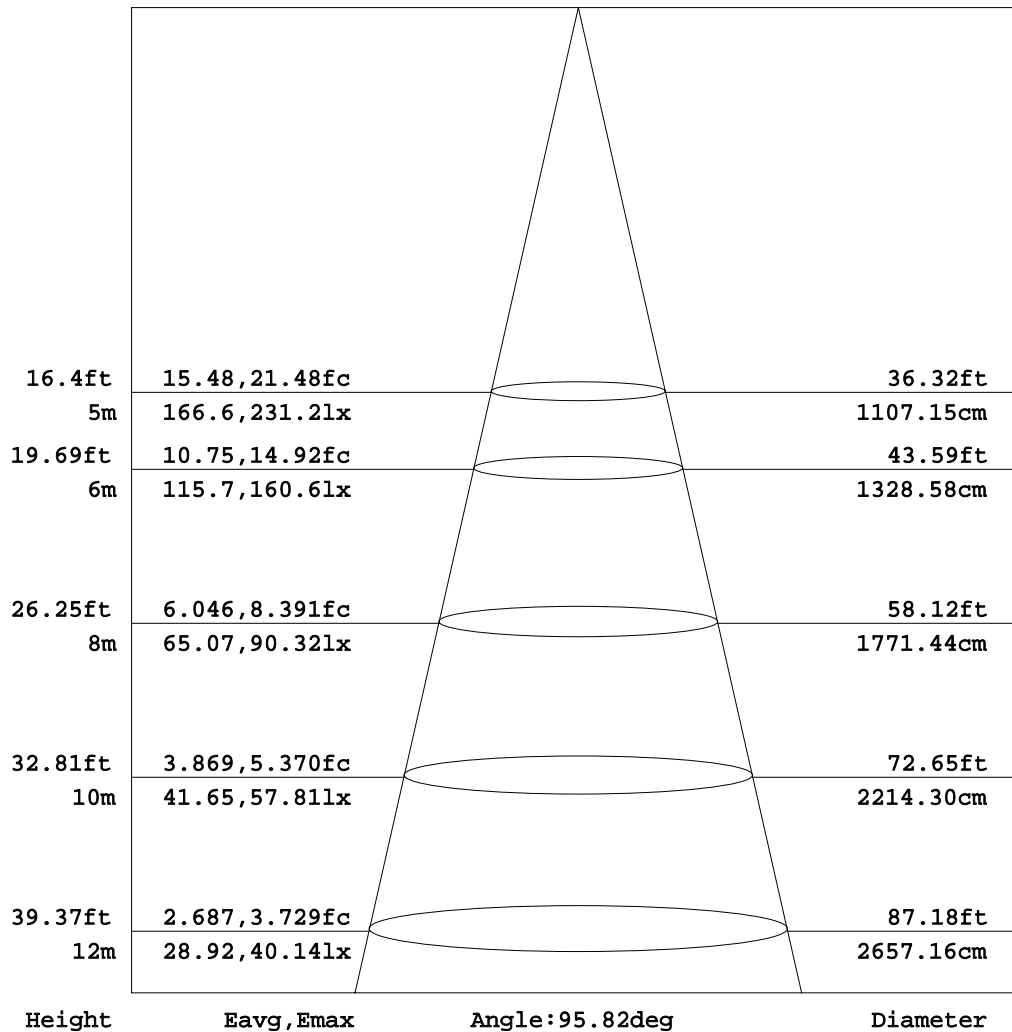
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators: CHEN YU
 Test Date: 2017-04-27

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:1.366A P:297.3W PF:0.9855 Lamp Flux:3547lx1 lm		
NAME: SHOE BOX	TYPE:YHL-ST9-300	WEIGHT:
SPEC.:MEAN WELL	DIM.: 5000K	SERIAL No.:20170427
MFR.:	SUR.:70Ra	PROTECTION ANGLE:

Flux out:16138 lm



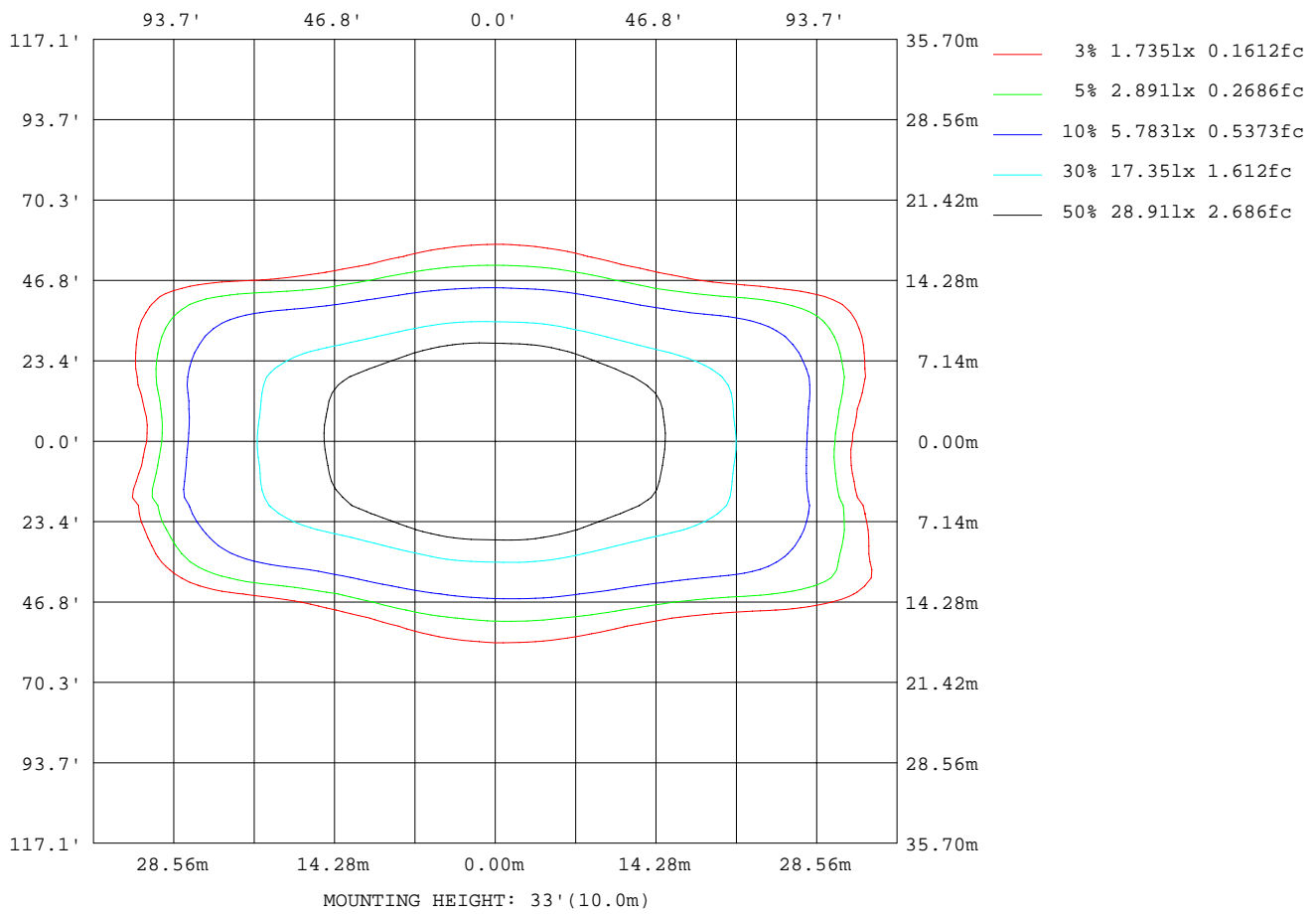
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:CHEN YU
 Test Date:2017-04-27

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

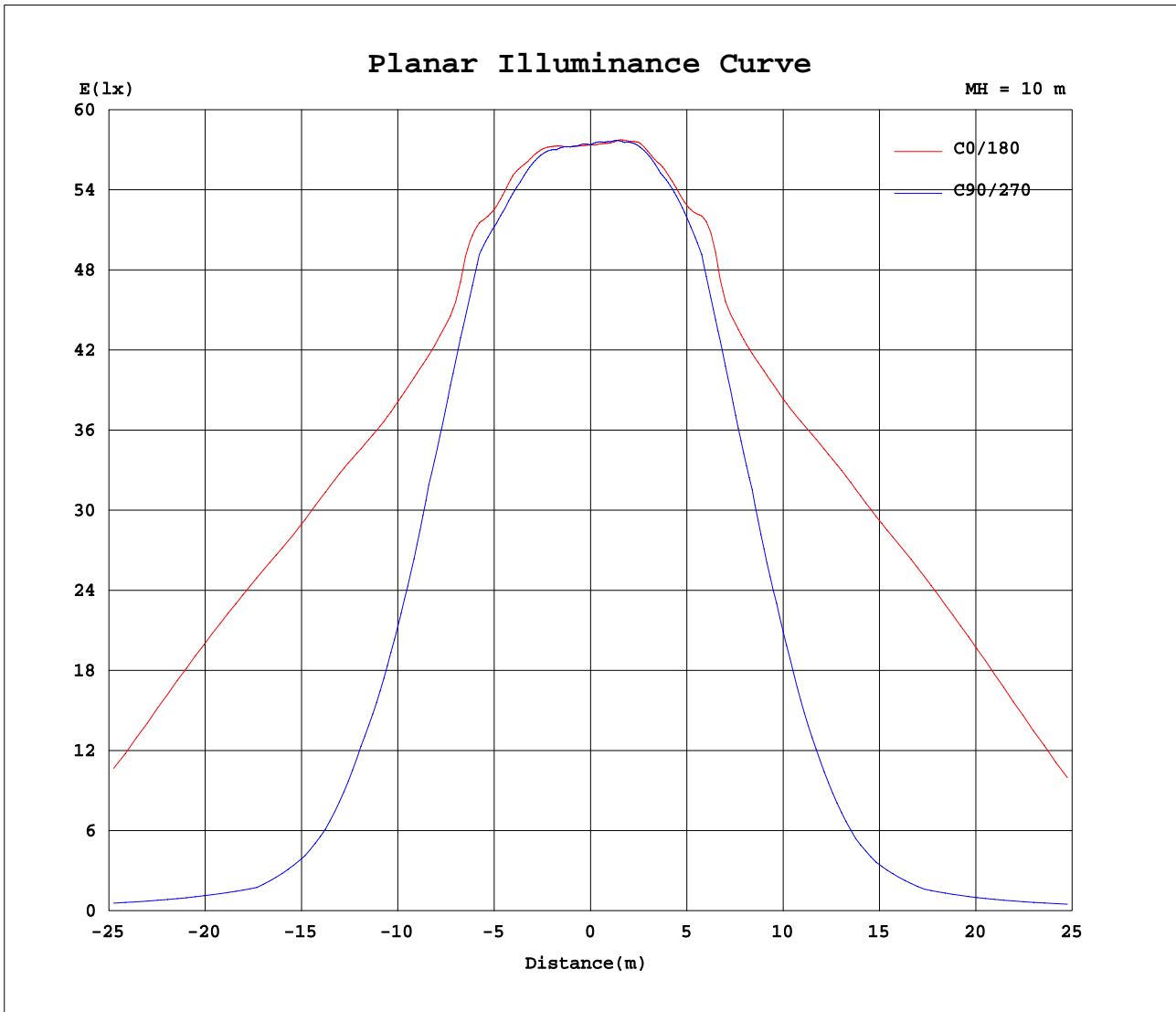
Test:U:220.8V I:1.366A P:297.3W PF:0.9855 Lamp Flux:3547lx1 lm		
NAME: SHOE BOX	TYPE:YHL-ST9-300	WEIGHT:
SPEC.:MEAN WELL	DIM.: 5000K	SERIAL No.:20170427
MFR.:	SUR.:70Ra	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:CHEN YU
 Test Date:2017-04-27

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: 2017-04-27

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:

