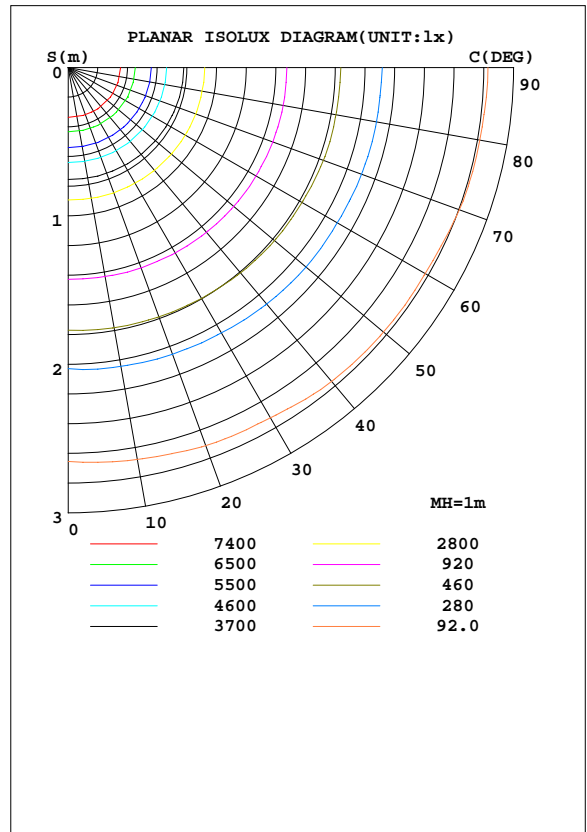
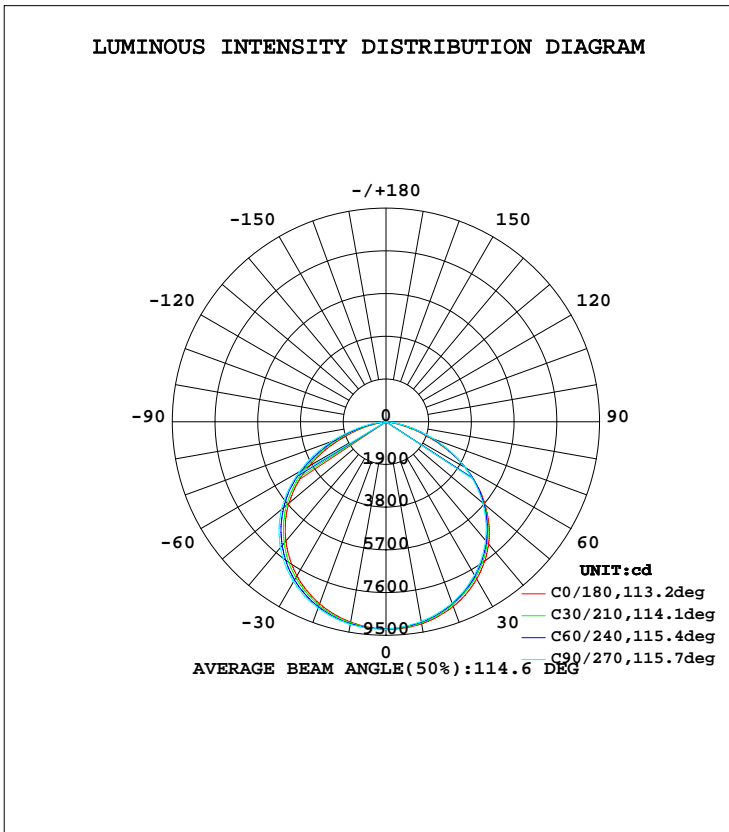


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:223.3V I:0.8348A P:178.7W PF:0.9584 Lamp Flux:26104.1x1 lm		
NAME: LED HIGH BAY LIGHT	TYPE:YHL-ID-180-HB-VE	WEIGHT:
SPEC.:MEAN WELL	DIM.: 5000K	SERIAL No.:20170220
MFR.:	SUR.:70Ra	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 146.09 lm/W			
MODEL NF2W757GRT-V1 380PCS		Imax(cd)	9228	S/MH(C0/180)	1.30
NOMINAL POWER(W)	177	LOR(%)	100.0	S/MH(C90/270)	1.27
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	26104	η UP, DN(C0-180)	0.0, 51.0
NOMINAL FLUX(lm)	26104.1	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 49.0
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	220	η down(%)	100.0	CIBSE SHR MAX	1.35



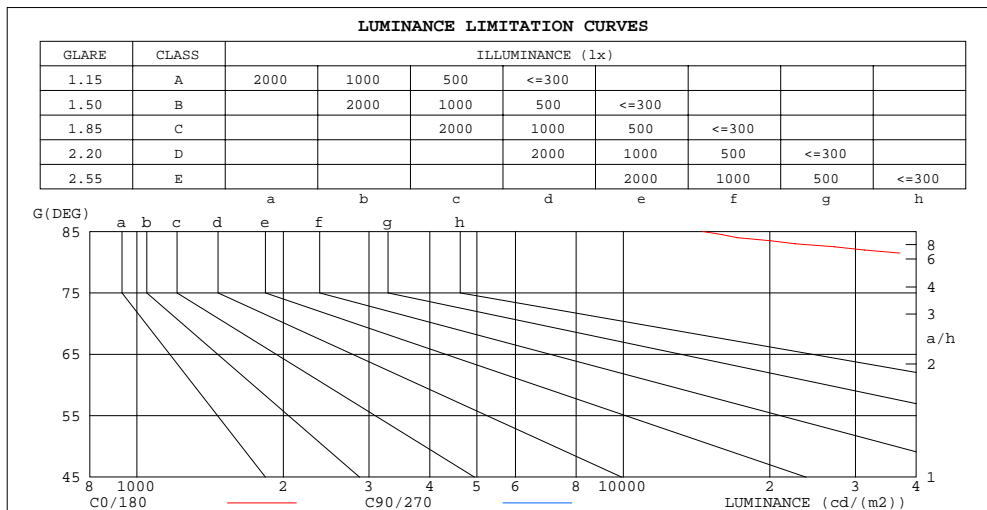
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:CHEN YU
 Test Date:2017-02-20

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	Φ lum, lamp
5	9167	9190	9214	9217	9212	9170	9143	9137	0- 5	219.9	219.9	0.84,0.84
10	9048	9098	9153	9145	9126	9060	9022	9002	5- 10	653.1	873.1	3.34,3.34
15	8869	8951	9012	9011	8964	8887	8830	8815	10- 15	1067	1940	7.43,7.43
20	8622	8726	8824	8810	8742	8641	8584	8553	15- 20	1450	3391	13,13
25	8302	8434	8554	8524	8445	8323	8258	8220	20- 25	1790	5181	19.8,19.8
30	7917	8071	8219	8179	8071	7942	7874	7818	25- 30	2074	7255	27.8,27.8
35	7452	7635	7799	7757	7627	7492	7415	7350	30- 35	2293	9548	36.6,36.6
40	6925	7121	7316	7250	7103	6970	6896	6805	35- 40	2437	11985	45.9,45.9
45	6321	6524	6724	6634	6477	6383	6288	6183	40- 45	2497	14482	55.5,55.5
50	5632	5873	6073	5940	5753	5722	5633	5502	45- 50	2466	16947	64.9,64.9
55	4837	5112	5301	5141	4946	4949	4871	4710	50- 55	2338	19285	73.9,73.9
60	3943	4258	4449	4240	4040	4088	4059	3875	55- 60	2105	21390	81.9,81.9
65	2985	3343	3526	3282	3065	3177	3192	2976	60- 65	1779	23169	88.8,88.8
70	1963	2369	2579	2278	2038	2238	2274	2058	65- 70	1372	24541	94,94
75	1056	1394	1604	1310	1100	1323	1382	1193	70- 75	915.9	25457	97.5,97.5
80	340.0	538.7	764.9	500.0	356.8	559.9	630.2	496.7	75- 80	479.9	25937	99.4,99.4
85	44.40	96.08	146.3	78.53	29.30	133.7	127.6	128.2	80- 85	156.9	26093	100,100
90	2.291	0	0	0	3.362	0	0	0	85- 90	10.69	26104	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		



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	14555	47964
80	55939	125851
75	116532	177031
70	164006	215415
65	201805	238375
60	225311	254246
55	240939	264068
50	250322	269948
45	255416	271684

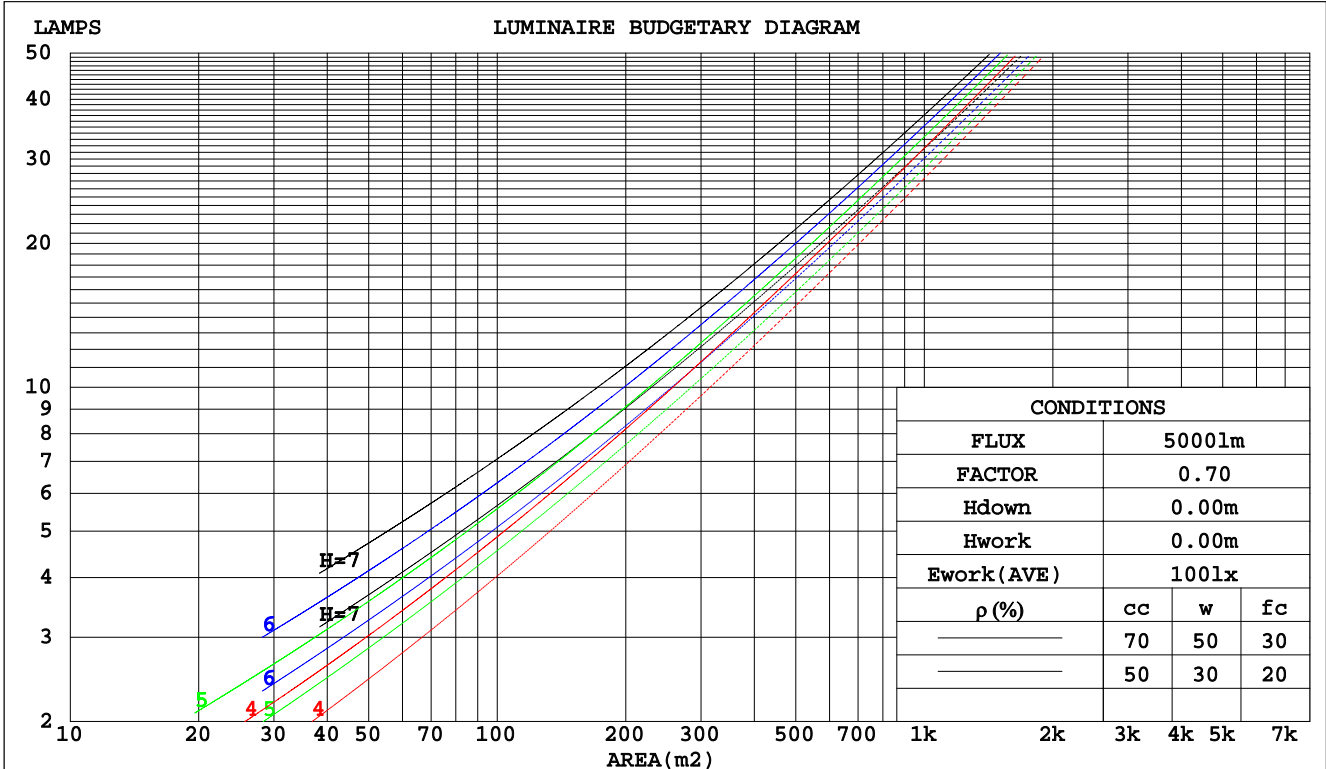
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:25DEG
Operators:CHEN YU
Test Date:2017-02-20

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:223.3V I:0.8348A P:178.7W PF:0.9584 Lamp Flux:26104.1x1 lm		
NAME: LED HIGH BAY LIGHT	TYPE:YHL-ID-180-HB-VE	WEIGHT:
SPEC.:MEAN WELL	DIM.: 5000K	SERIAL No.:20170220
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	.00
1.0	1.05	1.01	.97	1.03	.99	.96	.98	.95	.93	.95	.92	.90	.91	.89	.87	.85
2.0	.92	.85	.80	.90	.84	.79	.86	.81	.77	.83	.79	.75	.80	.77	.73	.71
3.0	.81	.73	.66	.79	.72	.66	.76	.70	.65	.73	.68	.63	.71	.66	.62	.60
4.0	.71	.63	.56	.70	.62	.56	.68	.61	.55	.65	.59	.54	.63	.58	.54	.51
5.0	.64	.55	.48	.63	.54	.48	.61	.53	.48	.59	.52	.47	.57	.51	.47	.44
6.0	.57	.49	.42	.56	.48	.42	.55	.47	.42	.53	.46	.41	.51	.45	.41	.39
7.0	.52	.43	.37	.51	.43	.37	.50	.42	.37	.48	.42	.36	.47	.41	.36	.34
8.0	.47	.39	.33	.47	.39	.33	.45	.38	.33	.44	.37	.33	.43	.37	.32	.30
9.0	.43	.35	.30	.43	.35	.30	.42	.35	.30	.41	.34	.29	.40	.34	.29	.27
10.0	.40	.32	.27	.40	.32	.27	.39	.32	.27	.38	.31	.27	.37	.31	.26	.25



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:CHEN YU
 Test Date:2017-02-20

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:223.3V I:0.8348A P:178.7W PF:0.9584 Lamp Flux:26104.1x1 lm		
NAME: LED HIGH BAY LIGHT	TYPE:YHL-ID-180-HB-VE	WEIGHT:
SPEC.:MEAN WELL	DIM.: 5000K	SERIAL No.:20170220
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	.289	.164	.052	.282	.161	.051	.269	.154	.049	.257	.148	.048	.246	.142	.046	
2.0	.279	.153	.047	.273	.150	.046	.261	.145	.045	.250	.140	.044	.241	.136	.043	
3.0	.261	.139	.042	.256	.137	.041	.246	.133	.040	.236	.129	.040	.227	.126	.039	
4.0	.243	.126	.037	.238	.125	.037	.229	.122	.036	.221	.119	.036	.213	.116	.035	
5.0	.226	.115	.033	.222	.114	.033	.214	.111	.033	.206	.109	.032	.199	.106	.032	
6.0	.211	.106	.030	.207	.104	.030	.200	.102	.030	.193	.100	.029	.187	.098	.029	
7.0	.197	.097	.028	.193	.096	.027	.187	.094	.027	.181	.093	.027	.175	.091	.027	
8.0	.184	.090	.025	.181	.089	.025	.175	.088	.025	.170	.086	.025	.165	.085	.025	
9.0	.173	.084	.023	.170	.083	.023	.165	.081	.023	.160	.080	.023	.155	.079	.023	
10.0	.163	.078	.022	.160	.077	.022	.155	.076	.021	.151	.075	.021	.147	.074	.021	

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	.179	.156	.136	.153	.134	.117	.105	.092	.081	.060	.053	.047	.019	.017	.015	
2.0	.171	.132	.100	.146	.114	.086	.100	.079	.060	.058	.046	.035	.019	.015	.011	
3.0	.163	.114	.076	.140	.099	.065	.096	.068	.046	.055	.040	.027	.018	.013	.009	
4.0	.155	.101	.059	.133	.087	.051	.092	.061	.036	.053	.036	.021	.017	.012	.007	
5.0	.148	.090	.048	.127	.078	.042	.088	.055	.029	.051	.032	.017	.016	.010	.006	
6.0	.141	.082	.040	.121	.071	.034	.084	.050	.024	.049	.029	.014	.016	.010	.005	
7.0	.135	.075	.034	.116	.065	.029	.080	.046	.021	.046	.027	.012	.015	.009	.004	
8.0	.128	.069	.029	.110	.060	.025	.076	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.122	.064	.025	.105	.056	.022	.073	.039	.016	.043	.023	.009	.014	.008	.003	
10.0	.117	.060	.023	.101	.052	.020	.070	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:CHEN YU
 Test Date:2017-02-20

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:223.3V I:0.8348A P:178.7W PF:0.9584 Lamp Flux:26104.1x1 lm		
NAME: LED HIGH BAY LIGHT	TYPE:YHL-ID-180-HB-VE	WEIGHT:
SPEC.:MEAN WELL	DIM.: 5000K	SERIAL No.:20170220
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	32.1	33.6	32.3	33.8	34.0	32.5	34.0	32.8	34.2	34.4
3H	33.2	34.6	33.5	34.8	35.0	33.9	35.2	34.2	35.5	35.7
4H	33.4	34.7	33.7	35.0	35.2	34.3	35.6	34.6	35.9	36.1
6H	33.4	34.7	33.8	35.0	35.2	34.5	35.8	34.9	36.0	36.3
8H	33.4	34.6	33.7	34.9	35.2	34.6	35.8	34.9	36.0	36.3
12H	33.4	34.5	33.7	34.8	35.1	34.6	35.7	34.9	36.0	36.3
4H 2H	32.7	34.0	33.0	34.2	34.5	33.0	34.3	33.3	34.6	34.8
3H	33.9	35.1	34.3	35.4	35.7	34.5	35.7	34.9	36.0	36.3
4H	34.3	35.3	34.6	35.6	36.0	35.1	36.1	35.4	36.4	36.7
6H	34.4	35.3	34.8	35.6	36.0	35.4	36.3	35.8	36.6	37.0
8H	34.3	35.2	34.7	35.5	35.9	35.4	36.3	35.8	36.6	37.0
12H	34.3	35.1	34.7	35.5	35.9	35.4	36.2	35.9	36.6	37.0
8H 4H	34.4	35.3	34.9	35.7	36.0	35.2	36.0	35.6	36.4	36.8
6H	34.6	35.3	35.0	35.7	36.1	35.5	36.2	36.0	36.6	37.1
8H	34.6	35.2	35.0	35.6	36.1	35.6	36.3	36.1	36.7	37.1
12H	34.5	35.1	35.0	35.5	36.0	35.7	36.2	36.1	36.6	37.1
12H 4H	34.4	35.2	34.8	35.6	36.0	35.1	35.9	35.6	36.3	36.7
6H	34.6	35.2	35.0	35.6	36.1	35.5	36.1	36.0	36.6	37.0
8H	34.6	35.1	35.0	35.5	36.0	35.6	36.2	36.1	36.6	37.1
Variations with the observer position at spacings:										
S = 1.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
1.5H	+ 0.3 / - 0.5					+ 0.2 / - 0.4				
2.0H	+ 0.3 / - 0.4					+ 0.3 / - 0.3				

CIE Pub.117 Corrected 26104 lm Total Lamp Luminous Flux.(8log(F/F0) = 11.3)

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:CHEN YU
 Test Date:2017-02-20

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:223.3V I:0.8348A P:178.7W PF:0.9584 Lamp Flux:26104.1x1 lm		
NAME: LED HIGH BAY LIGHT	TYPE:YHL-ID-180-HB-VE	WEIGHT:
SPEC.:MEAN WELL	DIM.: 5000K	SERIAL No.:20170220
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	58	46	40	57	46	39	56	46	39	33
0.80	68	57	50	67	56	49	66	56	49	42
1.00	77	66	59	76	66	59	74	67	58	51
1.25	84	74	67	83	73	67	80	72	66	59
1.50	89	80	73	88	79	72	85	77	71	64
2.00	96	88	82	94	87	81	91	85	80	72
2.50	100	93	87	98	91	86	94	89	84	76
3.00	103	97	92	101	95	90	97	92	88	80
4.00	107	102	97	105	100	96	101	97	93	85
5.00	109	105	101	107	103	100	103	99	96	88
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:2017-02-20

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

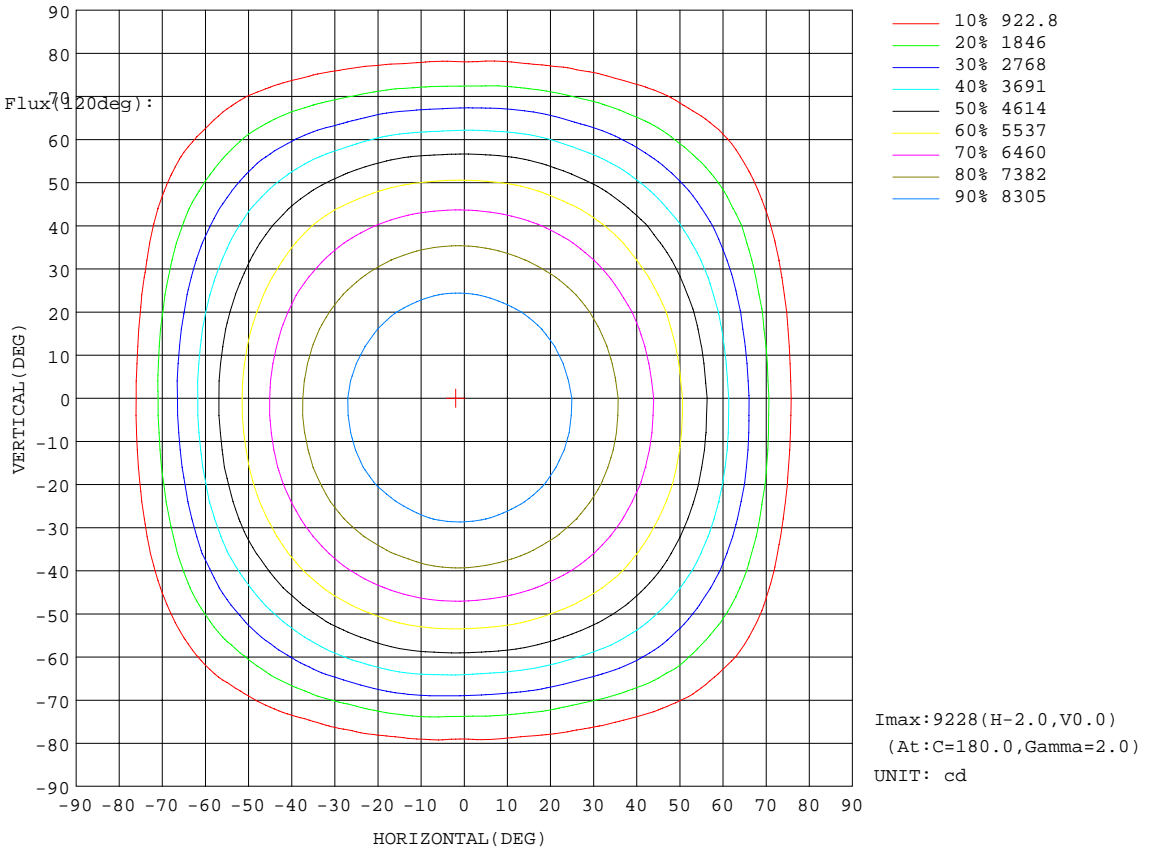
Test:U:223.3V I:0.8348A P:178.7W PF:0.9584 Lamp Flux:26104.1x1 lm		
NAME: LED HIGH BAY LIGHT	TYPE:YHL-ID-180-HB-VE	WEIGHT:
SPEC.:MEAN WELL	DIM.: 5000K	SERIAL No.:20170220
MFR.:	SUR.:70Ra	PROTECTION ANGLE:

Conical surface Flux(90deg):

14482 lm
 %lum = 55.5%
 %lamp = 55.5%

Conical surface Flux(70deg):

21390 lm
 %lum = 81.9%
 %lamp = 81.9%



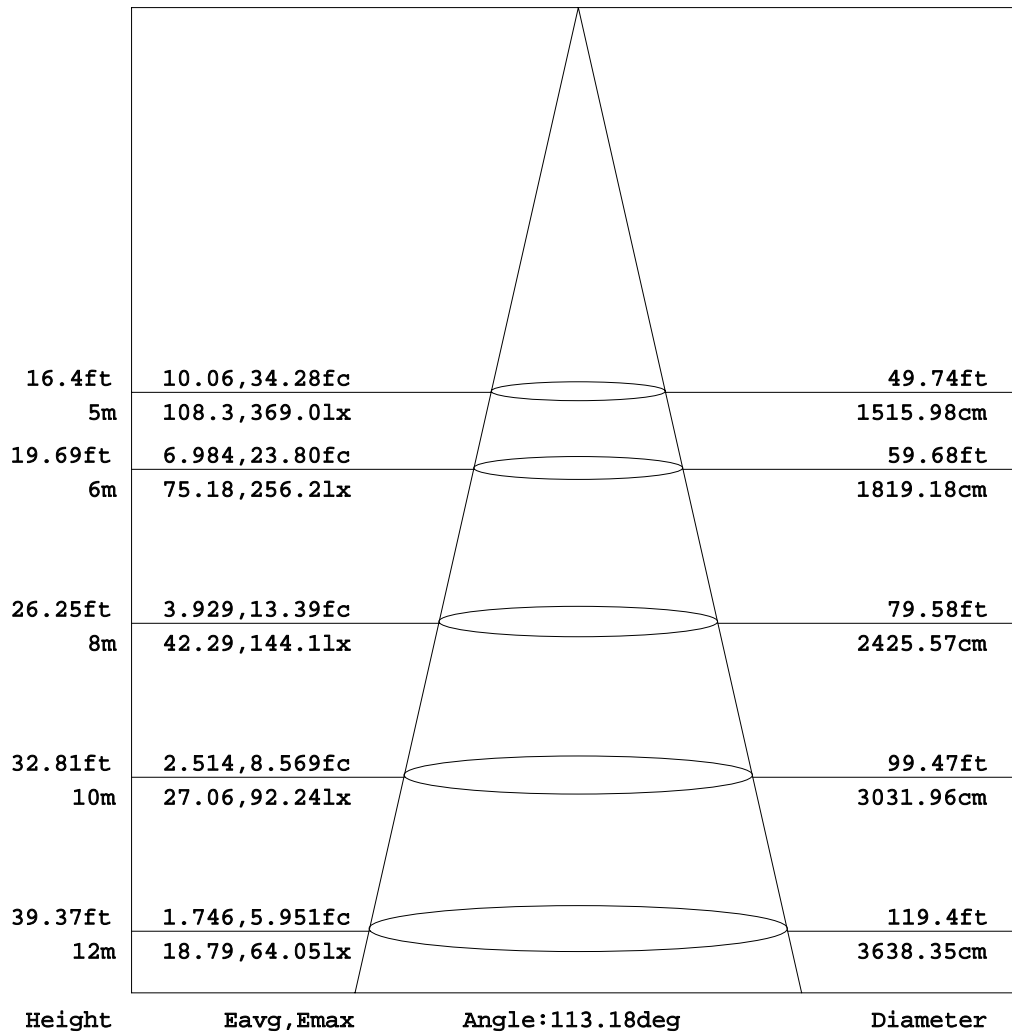
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25DEG
 Operators: CHEN YU
 Test Date: 2017-02-20

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:223.3V I:0.8348A P:178.7W PF:0.9584 Lamp Flux:26104.1x1 lm		
NAME: LED HIGH BAY LIGHT	TYPE:YHL-ID-180-HB-VE	WEIGHT:
SPEC.:MEAN WELL	DIM.: 5000K	SERIAL No.:20170220
MFR.:	SUR.:70Ra	PROTECTION ANGLE:

Flux out:20161 lm



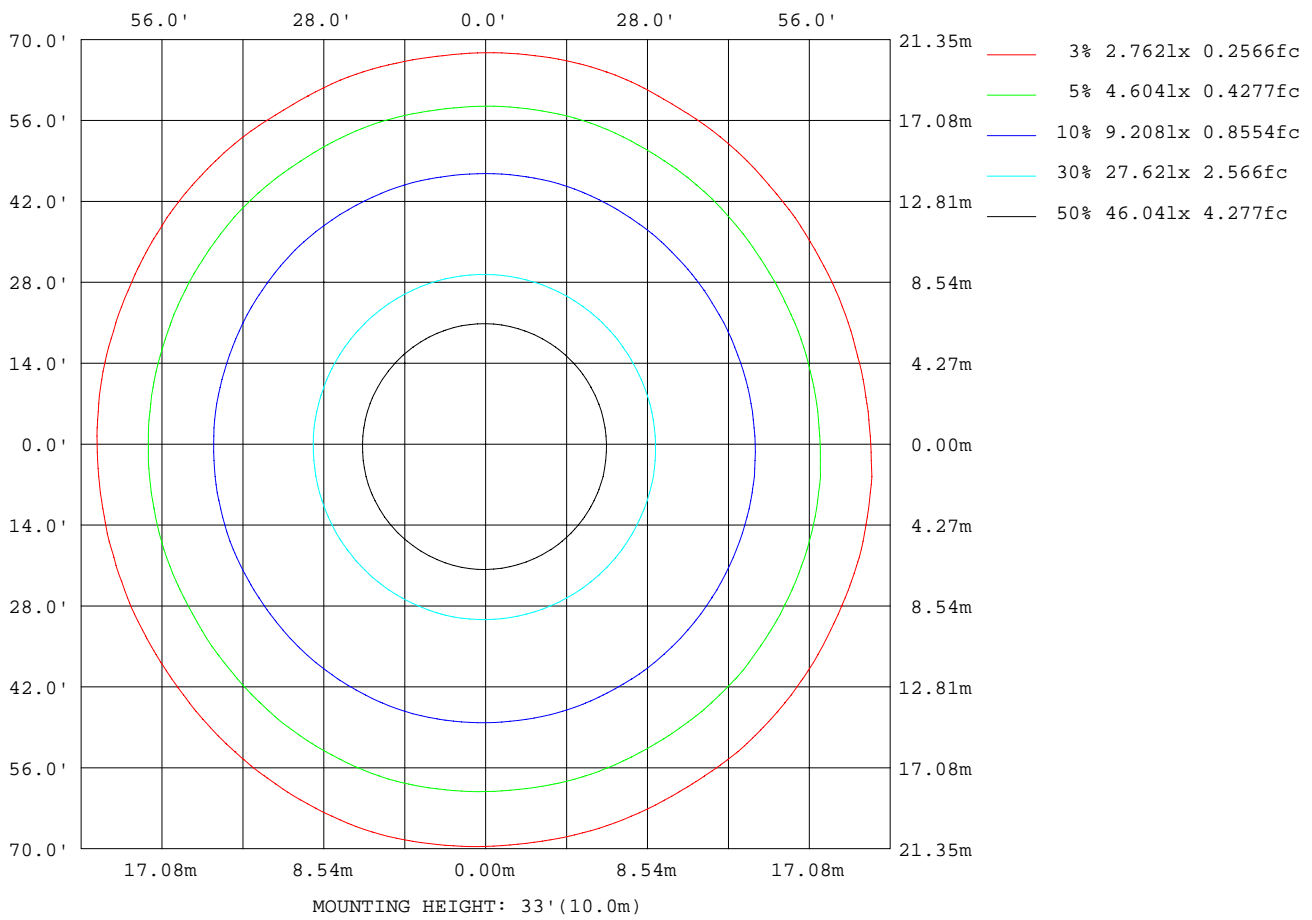
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:CHEN YU
 Test Date:2017-02-20

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

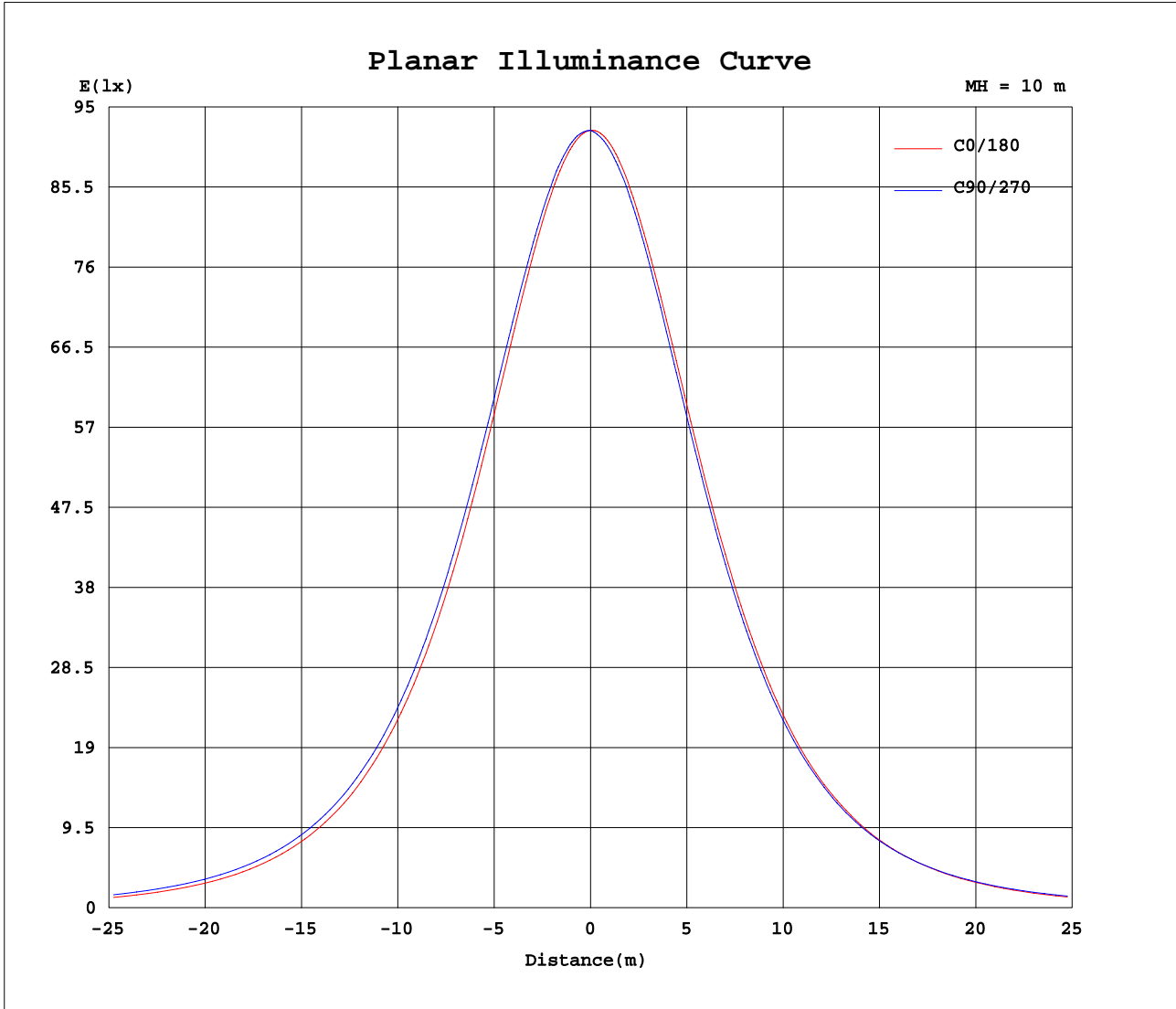
Test:U:223.3V I:0.8348A P:178.7W PF:0.9584 Lamp Flux:26104.1x1 lm		
NAME: LED HIGH BAY LIGHT	TYPE:YHL-ID-180-HB-VE	WEIGHT:
SPEC.:MEAN WELL	DIM.: 5000K	SERIAL No.:20170220
MFR.:	SUR.:70Ra	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:CHEN YU
 Test Date:2017-02-20

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: 2017-02-20

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:223.3V I:0.8348A P:178.7W PF:0.9584 Lamp Flux:26104.1x1 lm		
NAME: LED HIGH BAY LIGHT	TYPE:YHL-ID-180-HB-VE	WEIGHT:
SPEC.:MEAN WELL	DIM.: 5000K	SERIAL No.:20170220
MFR.:	SUR.:70Ra	PROTECTION ANGLE:

Table--3

UNIT: cd

C(DEG) γ (DEG)	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280
0	9223	9223	9223	9223	9223	9223	9223	9223	9223	9223	9223	9223	9223	9223	9223	9223	9223	9223	9223
5	9200	9194	9189	9185	9181	9177	9174	9170	9167	9164	9160	9157	9153	9150	9148	9145	9143	9141	9139
10	9106	9100	9094	9090	9082	9076	9068	9060	9054	9048	9044	9040	9035	9032	9028	9025	9022	9019	9015
15	8940	8935	8926	8918	8908	8901	8897	8887	8876	8868	8863	8858	8853	8847	8841	8836	8830	8825	8819
20	8711	8698	8682	8672	8666	8654	8647	8641	8632	8621	8612	8606	8602	8600	8596	8591	8584	8576	8568
25	8412	8394	8378	8362	8350	8341	8333	8323	8317	8305	8295	8290	8286	8281	8274	8267	8258	8248	8239
30	8044	8026	8012	7998	7981	7962	7955	7942	7937	7927	7916	7905	7900	7896	7891	7884	7874	7862	7849
35	7596	7585	7569	7552	7533	7516	7505	7492	7479	7474	7461	7453	7450	7445	7434	7425	7415	7405	7394
40	7064	7050	7042	7019	7004	6995	6978	6970	6961	6958	6950	6938	6932	6926	6915	6908	6896	6883	6871
45	6448	6432	6422	6418	6410	6393	6384	6383	6368	6361	6353	6345	6339	6328	6310	6299	6288	6278	6270
50	5728	5703	5692	5694	5689	5710	5713	5722	5702	5692	5684	5676	5671	5660	5645	5638	5633	5624	5618
55	4941	4914	4905	4902	4915	4915	4929	4949	4945	4938	4932	4928	4928	4917	4890	4875	4871	4868	4870
60	4050	4037	4031	4050	4048	4055	4076	4088	4084	4073	4085	4092	4104	4094	4065	4051	4059	4054	4055
65	3101	3101	3112	3109	3130	3156	3179	3177	3182	3177	3151	3174	3200	3183	3175	3174	3192	3199	3209
70	2089	2116	2123	2117	2159	2210	2227	2238	2248	2228	2218	2235	2277	2286	2272	2263	2274	2284	2298
75	1141	1178	1200	1198	1224	1286	1308	1323	1311	1344	1355	1369	1373	1377	1392	1399	1382	1406	1426
80	389	419	450	464	484	530	554	560	592	610	618	634	643	633	636	661	630	661	653
85	40.8	47.7	55.0	68.5	67.7	95.0	117	134	147	153	153	151	148	141	136	134	128	134	135
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	0.00	0.00

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25DEG
 Operators:CHEN YU
 Test Date:2017-02-20

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:

