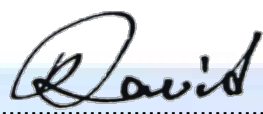





IESNA LM-79 TEST REPORT

Applicant's name	: Blackjack lighting
Address	: 1553 Barclay Blvd. Buffalo Grove, IL 60089
Brand Name	: Blackjack lighting
Report No.	: BTR66.181.15.0035.01
Product Name	: Pendant fixture
Model Number	: BOX-06P-WH
Tested by (printed name and signature)	: David Zhang 
Title	: Test Engineer
Approved by (printed name and signature)	: Steven Su 
Title	: Approved Signatory
Date of issue	: Mar 23, 2016
Testing Laboratory Name	: BEST Test Service Shenzhen Co., Ltd.
Address	: 1 st Floor, 1 st Building, Weitai Industrial Park, Yingrenshi, Shiyao, Baoan, Shenzhen, China
Accreditation	: DLC/Lighting Facts/UL/ETL/ELI/NVLAP/EPA/DOE
Test specification	
Standard	: IESNA LM-79
Test procedure	: IESNA LM-79 Test Procedure
Non-standard test method	: No
Test Report Form No.	BEST_LM-79
TRF originator	: BEST Test Service Shenzhen Co., Ltd. Mr Tseng
Master TRF	: BEST_LM-79.doc

Note:
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Product description:	
Test date	Mar 15, 2016 to Mar 22, 2016
Sample Quantity	1 unit
SKU.....	N/A
Rating(s) (V; Hz)	120V 60HZ
Nominal Power	9W
Nominal Power Factor	N/A
Nominal Lumen Output.....	460lm
Nominal CCT	3000K
Nominal CRI(Ra)	90
Number of hours operated prior to measurement	0H
Total operating time of the product for measurements including stabilization	3.5H
Ambient temperature	25°C
Orientation (burning position) of SSL product during test	Lighting Surface Down
Stabilization time	1.5 H
Photometric method	Sphere-spectroradiometer+Goniophotometer
reference standard used	DC 24V 100W Omni-Directional Halogen Calibrated by NIM China
Correction factors applied	Self absorbing applied
Photometric measurement conditions	See test method description below
Bandwidth of spectroradiometer	2nm
Statement of uncertainties	1.12%
Deviation from standard operating procedures,	None

Photometric and Electrical Measurement

Total light output (luminous flux) for the 25°C ±1°C ambient temperature conditions is measured using a EVERFINE 2.0 m 4Π geometry integrating sphere. Temperature is measured at a position inside the sphere. Spectral radiant flux measurements are made using Integral Sphere to the detector port of the integrating sphere. Each lamp is operated at rated voltage in its designated orientation by a CHROMA 61602 AC SOURCE. Each lamp should be stable before measurements are made as below:

Step 1 Take 3 measurements of the lamp light output at 15 minute interval (total time=30mintues.)This time period is in addition to the recommended pre-burning time.

Step 2 Calculate the percent difference between the maximum measured value and the minimum measured value for the three consecutive measurements.

Step 3 if the value calculated in Step 2 does not exceed 0.5 percent, the lamp is considered stable.

Luminous flux, chromaticity coordinates, correlated color temperature and color rendering index for each lamp are calculated from the spectral radiant flux measurements taken at 2 nm intervals over the range 380 to 780 nm by EVERFINE HASS-2000. The calibration of the sphere photometer-spectrometer system is traceable to the NIM China by a calibrated halogen incandescent lamp. Lamp efficacy (lumens per watts) for each lamp model is computed based on the revised luminous flux result. Electrical measurements including voltage, current, power and power factor are measured using the YOKOGAWA WT310 digital power Meter.

The total uncertainty of the light output measurements is estimated, at the 95% confidence level, not to exceed ±1.12% over the wavelength range 380-780 nm.

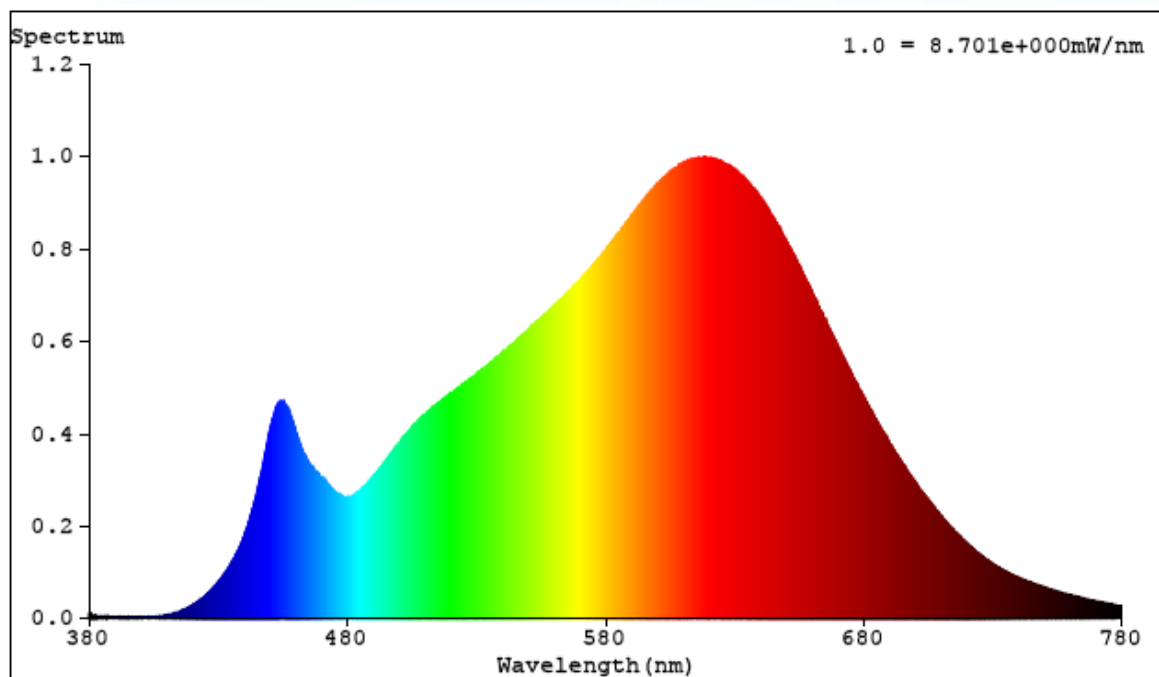
Luminous Intensity

A Everfine GOR-5000 Goniophotometer was used to measure the intensity at each angle of distribution, Luminous intensity (cd) is measured within each vertical plane at a 5° vertical angle increment (maximum) from 0° to 180° Luminous intensity (cd), measurements repeated in vertical planes about the lamp (polar) axis in maximum increments of 22.5° from 0° to 180°, and export the intensity (cd) with excel format. The test distance is 25meters from the Goniophotometer to the detector

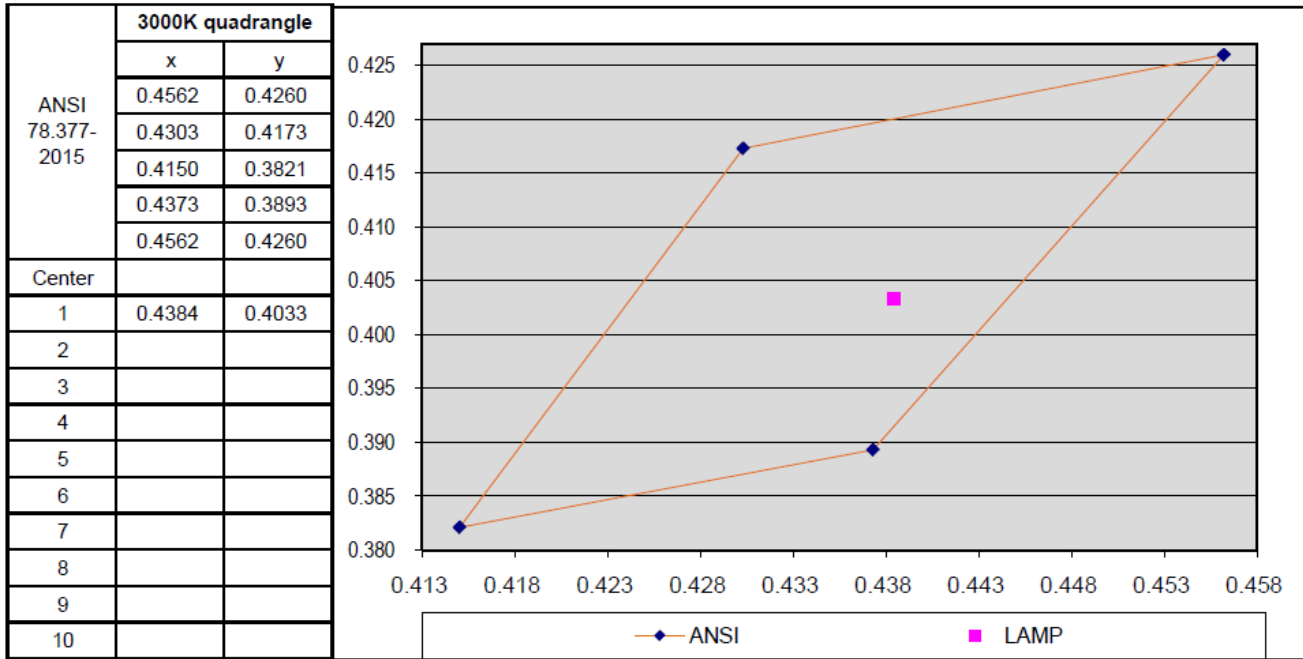
Photometric and Electrical Test Data

Input Voltage (V)	Frequency (Hz)	Input Current (A)	ITHD	Input Power (W)	Power Factor	Lumen Output (Lumens)	Efficiency Lumen/w
120.1	60.0	0.0773	/	9.17	0.9872	466.17	50.85
CCT (K)	CRI (Ra)	R9	x CIE1931	y CIE1931	u' CIE1976	v' CIE1976	Duv CIE1976
2970	92.4	56	0.4384	0.4033	0.2518	0.5213	-0.0005

Spectrul Plots



7 Step Quadrangle



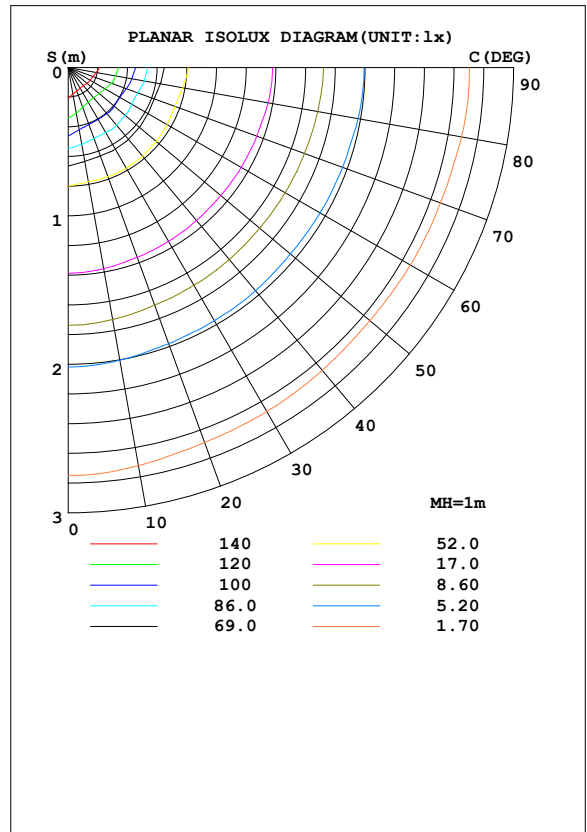
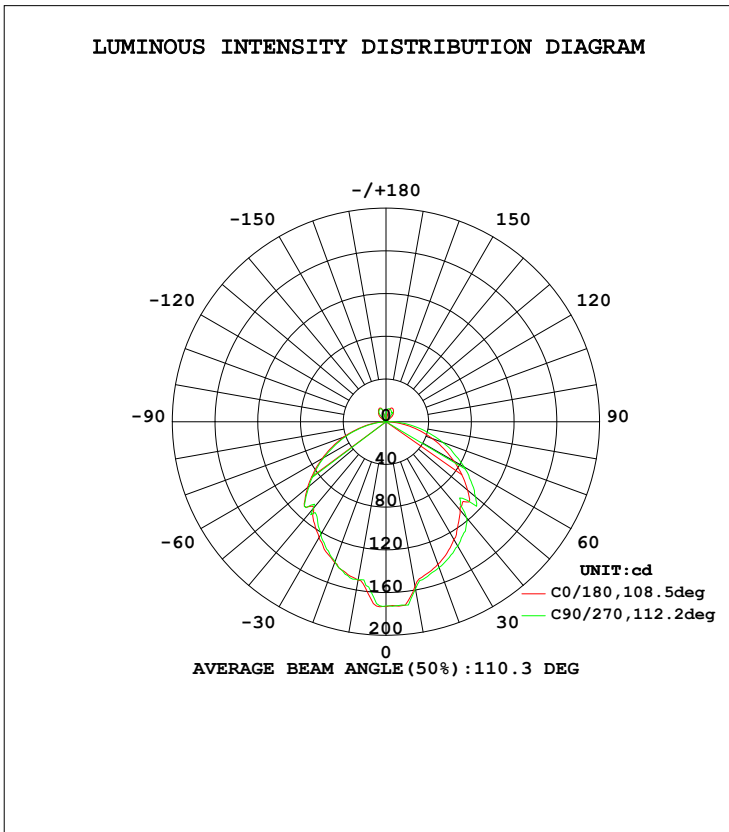
EUT Photo



LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.1V I:0.0773A P:9.168W PF:0.9872 Lamp Flux:466.169x1 lm		
NAME:	TYPE:BOX-06P-WH	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Blackjack Lighting	SUR.:0.1*0.1	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 50.85 lm/W			
MODEL	BOX-06P-WH	I _{max} (cd)	173.6	S/MH (C0/180)	1.11
NOMINAL POWER (W)	9	LOR (%)	100.0	S/MH (C90/270)	1.17
RATED VOLTAGE (V)	120	TOTAL FLUX (lm)	466.17	η UP, DN (C0-180)	2.8, 44.6
NOMINAL FLUX (lm)	466.169	CIE CLASS	DIRECT	η UP, DN (C180-360)	2.7, 49.9
LAMPS INSIDE	1	η up (%)	5.5	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	120	η down (%)	94.5	CIBSE SHR MAX	1.30



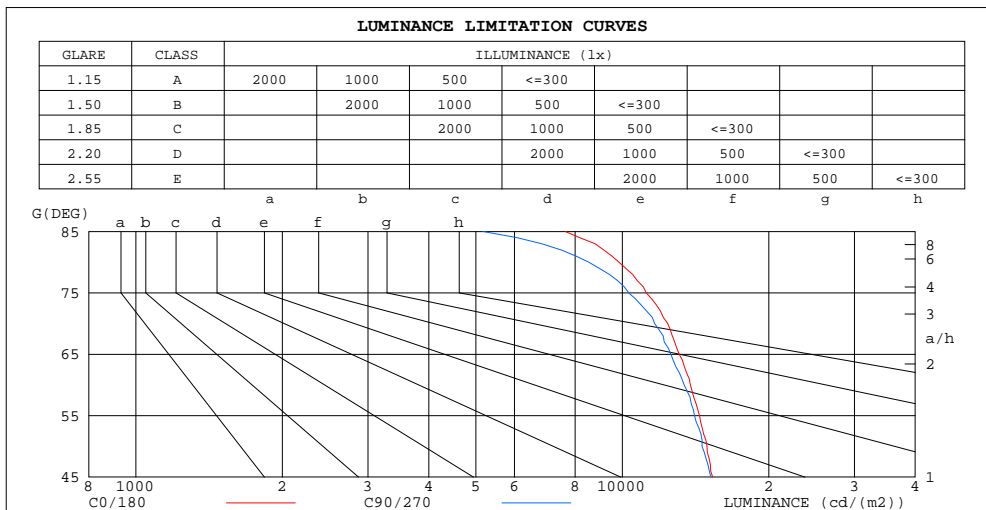
C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature: 25.6DEG
 Operators: David
 Test Date: 2016-03-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.0.287
 Humidity: 67.1%
 Test Distance: 26.000m [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	$\%lum, lamp$
10	150.6	139.6	150.4	148.4	156.5	167.6	159.0	155.7	0- 10	15.57	15.57	3.34,3.34
20	140.4	128.3	139.6	129.2	142.0	130.9	145.2	129.7	10- 20	40.26	55.84	12,12
30	125.2	116.7	122.1	118.0	127.1	122.3	134.6	121.3	20- 30	59.22	115.1	24.7,24.7
40	105.5	102.4	106.0	103.7	108.0	110.6	117.6	109.4	30- 40	71.60	186.7	40,40
50	96.00	87.57	93.72	89.16	99.89	95.15	109.6	94.86	40- 50	78.05	264.7	56.8,56.8
60	69.01	62.87	66.99	65.96	73.05	76.27	84.49	73.43	50- 60	74.88	339.6	72.8,72.8
70	42.42	37.33	39.87	40.06	46.19	50.47	56.66	47.55	60- 70	57.28	396.9	85.1,85.1
80	17.09	13.80	14.81	16.05	20.31	25.14	28.87	22.53	70- 80	33.82	430.7	92.4,92.4
90	0.0559	0.1389	0.0751	0.1684	0.1812	2.454	3.982	0.6942	80- 90	9.998	440.7	94.5,94.5
100	0.0186	0.1206	0.0746	0.1299	0.1312	0.1206	0.0933	0.1206	90-100	0.1884	440.9	94.6,94.6
110	0.1864	0.1392	0.2425	0.1485	0.3176	0.2135	0.2987	0.2231	100-110	0.1868	441.1	94.6,94.6
120	0.5588	0.6107	2.273	0.3706	0.7481	0.4285	0.5989	0.5403	110-120	0.4194	441.5	94.7,94.7
130	7.560	4.558	1.395	3.647	4.641	2.386	1.324	2.903	120-130	1.555	443.0	95,95
140	10.94	11.19	9.667	10.32	10.84	8.209	4.748	9.199	130-140	4.859	447.9	96.1,96.1
150	13.61	16.64	12.76	16.31	13.58	13.81	10.48	14.80	140-150	7.661	455.6	97.7,97.7
160	13.62	13.17	12.93	14.84	13.65	17.01	12.24	13.27	150-160	6.844	462.4	99.2,99.2
170	3.588	5.502	0.5031	4.294	3.429	12.82	12.25	12.56	160-170	3.227	465.6	99.9,99.9
180	1.492	0.6398	0.4281	0.5204	0.4849	0.4904	0.4543	0.4775	170-180	0.5310	466.2	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		



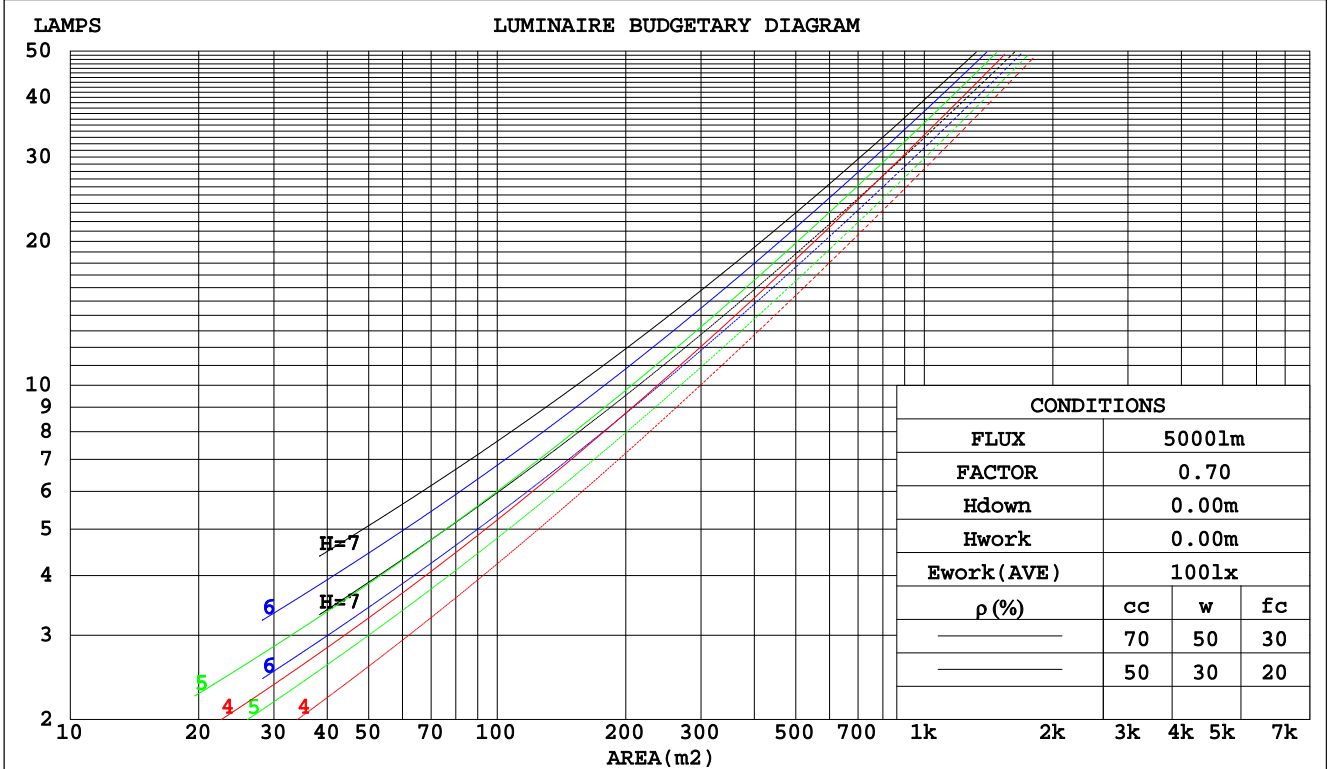
C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.6DEG
 Operators:David
 Test Date:2016-03-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.287
 Humidity:67.1%
 Test Distance:26.000m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.1V I:0.0773A P:9.168W PF:0.9872 Lamp Flux:466.169x1 lm		
NAME:	TYPE:BOX-06P-WH	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Blackjack Lighting	SUR.:0.1*0.1	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	1.18	1.18	1.18	1.14	1.14	1.14	1.08	1.08	1.08	1.02	1.02	1.02	.97	.97	.97	.95
1.0	1.02	.98	.94	.99	.95	.92	.94	.91	.88	.89	.87	.84	.85	.83	.81	.78
2.0	.89	.82	.76	.86	.80	.75	.82	.77	.72	.78	.73	.70	.74	.70	.67	.65
3.0	.78	.69	.63	.76	.68	.62	.72	.65	.60	.68	.63	.58	.65	.60	.57	.54
4.0	.69	.60	.53	.67	.59	.52	.64	.56	.51	.61	.55	.50	.58	.53	.48	.46
5.0	.61	.52	.45	.60	.51	.45	.57	.49	.44	.54	.48	.43	.52	.46	.42	.40
6.0	.55	.46	.39	.54	.45	.39	.51	.44	.38	.49	.42	.37	.47	.41	.37	.34
7.0	.50	.41	.35	.49	.40	.34	.47	.39	.34	.45	.38	.33	.43	.37	.32	.30
8.0	.45	.37	.31	.44	.36	.31	.43	.35	.30	.41	.34	.30	.39	.33	.29	.27
9.0	.42	.33	.28	.41	.33	.27	.39	.32	.27	.38	.31	.27	.36	.30	.26	.24
10.0	.38	.30	.25	.38	.30	.25	.36	.29	.25	.35	.29	.24	.34	.28	.24	.22



C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.6DEG
 Operators:David
 Test Date:2016-03-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.287
 Humidity:67.1%
 Test Distance:26.000m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:120.1V I:0.0773A P:9.168W PF:0.9872 Lamp Flux:466.169x1 lm														
NAME:					TYPE:BOX-06P-WH					WEIGHT:				
SPEC.:					DIM.:					SERIAL No.:				
MFR.: Blackjack Lighting					SUR.:0.1*0.1					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	.316	.180	.057	.308	.175	.056	.291	.167	.053	.276	.159	.051	.262	.152	.049	
2.0	.296	.162	.050	.288	.159	.049	.273	.152	.047	.260	.146	.046	.248	.140	.044	
3.0	.273	.145	.043	.266	.142	.043	.253	.137	.042	.241	.132	.040	.229	.127	.039	
4.0	.251	.130	.038	.245	.128	.038	.233	.124	.037	.222	.119	.036	.212	.115	.035	
5.0	.232	.118	.034	.226	.116	.034	.216	.112	.033	.206	.109	.032	.197	.105	.032	
6.0	.214	.107	.031	.209	.106	.030	.200	.102	.030	.191	.099	.029	.183	.096	.029	
7.0	.199	.099	.028	.195	.097	.028	.186	.094	.027	.178	.091	.027	.171	.089	.026	
8.0	.186	.091	.026	.182	.089	.025	.174	.087	.025	.167	.084	.024	.160	.082	.024	
9.0	.174	.084	.023	.170	.083	.023	.163	.081	.023	.157	.078	.022	.150	.076	.022	
10.0	.163	.078	.022	.160	.077	.022	.154	.075	.021	.148	.073	.021	.142	.071	.020	

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	.232	.232	.232	.198	.198	.198	.135	.135	.135	.078	.078	.078	.025	.025	.025	
1.0	.223	.198	.176	.191	.170	.151	.130	.117	.105	.075	.068	.061	.024	.022	.020	
2.0	.215	.174	.140	.184	.150	.121	.126	.104	.084	.073	.060	.049	.023	.020	.016	
3.0	.208	.157	.116	.178	.135	.101	.122	.094	.071	.071	.055	.042	.023	.018	.014	
4.0	.200	.144	.101	.172	.124	.087	.118	.087	.062	.068	.051	.036	.022	.017	.012	
5.0	.193	.133	.090	.165	.115	.078	.114	.081	.055	.066	.047	.033	.021	.015	.011	
6.0	.185	.125	.082	.159	.108	.071	.110	.076	.051	.064	.045	.030	.021	.015	.010	
7.0	.179	.118	.076	.154	.103	.066	.106	.072	.047	.062	.042	.028	.020	.014	.009	
8.0	.172	.113	.072	.148	.098	.063	.103	.069	.044	.060	.040	.026	.019	.013	.009	
9.0	.166	.108	.068	.143	.094	.060	.099	.066	.042	.058	.039	.025	.019	.013	.008	
10.0	.160	.104	.066	.138	.090	.057	.096	.063	.041	.056	.037	.024	.018	.012	.008	

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.6DEG
 Operators:David
 Test Date:2016-03-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.287
 Humidity:67.1%
 Test Distance:26.000m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:120.1V I:0.0773A P:9.168W PF:0.9872 Lamp Flux:466.169x1 lm										
NAME:			TYPE:BOX-06P-WH			WEIGHT:				
SPEC.:			DIM.:			SERIAL No.:				
MFR.: Blackjack Lighting			SUR.:0.1*0.1			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	21.5	23.0	21.9	23.3	23.6	21.4	22.9	21.8	23.2	23.5
3H	23.0	24.4	23.4	24.7	25.1	22.8	24.2	23.2	24.5	24.9
4H	23.6	24.9	24.0	25.2	25.6	23.4	24.6	23.8	25.0	25.4
6H	24.0	25.2	24.4	25.6	26.0	23.7	24.9	24.1	25.3	25.7
8H	24.1	25.3	24.5	25.7	26.1	23.8	24.9	24.2	25.3	25.7
12H	24.2	25.3	24.6	25.7	26.1	23.8	24.9	24.2	25.3	25.7
4H 2H	22.0	23.3	22.4	23.7	24.0	21.9	23.2	22.3	23.6	23.9
3H	23.7	24.8	24.1	25.2	25.6	23.5	24.6	23.9	25.0	25.4
4H	24.4	25.4	24.8	25.8	26.3	24.1	25.2	24.6	25.6	26.0
6H	24.9	25.8	25.3	26.2	26.7	24.6	25.5	25.1	25.9	26.4
8H	25.0	25.9	25.5	26.3	26.8	24.7	25.5	25.2	26.0	26.5
12H	25.1	25.9	25.6	26.4	26.9	24.7	25.5	25.2	26.0	26.5
8H 4H	24.5	25.4	25.0	25.8	26.3	24.3	25.2	24.8	25.6	26.1
6H	25.1	25.8	25.7	26.3	26.9	24.9	25.6	25.4	26.1	26.6
8H	25.4	26.0	25.9	26.5	27.1	25.0	25.7	25.6	26.2	26.8
12H	25.5	26.0	26.1	26.6	27.2	25.1	25.7	25.7	26.2	26.8
12H 4H	24.5	25.3	25.0	25.8	26.3	24.3	25.1	24.8	25.6	26.1
6H	25.2	25.8	25.7	26.3	26.9	24.9	25.5	25.4	26.0	26.6
8H	25.4	25.9	26.0	26.5	27.1	25.1	25.6	25.7	26.2	26.8
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.2					+ 0.2 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.4				
2.0H	+ 0.3 / - 0.4					+ 0.3 / - 0.3				

CIE Pub.117 Corrected 466.2 lm Total Lamp Luminous Flux. (8log(F/F0) = -2.7)

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.6DEG
Operators:David
Test Date:2016-03-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.287
Humidity:67.1%
Test Distance:26.000m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:120.1V I:0.0773A P:9.168W PF:0.9872 Lamp Flux:466.169x1 lm		
NAME:	TYPE:BOX-06P-WH	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Blackjack Lighting	SUR.:0.1*0.1	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) x RCR = 5									
k = 0.60	55	43	36	54	43	36	52	42	35	29
0.80	65	53	45	64	52	45	61	51	44	37
1.00	73	62	54	72	61	54	69	62	53	45
1.25	80	70	62	79	69	62	75	67	60	52
1.50	86	75	68	83	74	67	80	72	66	57
2.00	93	84	77	90	82	76	86	79	74	65
2.50	97	89	82	94	87	81	89	83	78	69
3.00	100	93	87	97	91	86	92	87	83	73
4.00	104	98	93	101	96	92	96	92	88	77
5.00	107	102	98	104	99	95	98	95	92	80
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.6DEG
 Operators:David
 Test Date:2016-03-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.287
 Humidity:67.1%
 Test Distance:26.000m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:120.1V I:0.0773A P:9.168W PF:0.9872 Lamp Flux:466.169x1 lm		
NAME:	TYPE:BOX-06P-WH	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Blackjack Lighting	SUR.:0.1*0.1	PROTECTION ANGLE:

Conical surface Flux(90deg):

224.84 lm

%lum = 48.2%

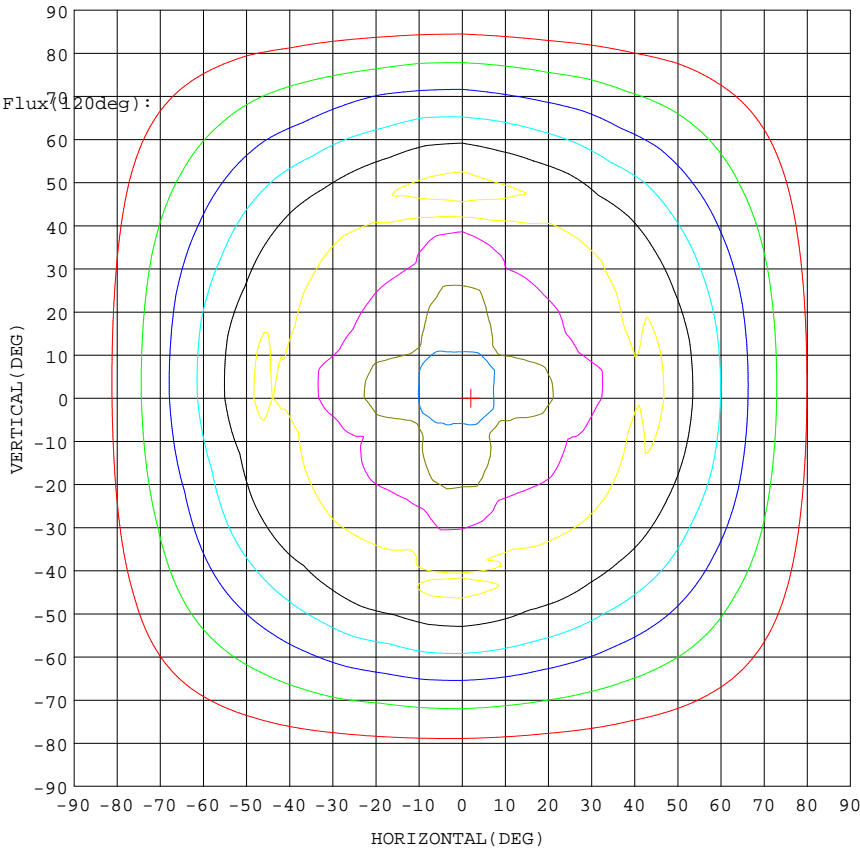
%lamp = 48.2%

Conical surface Flux(70deg):

339.6 lm

%lum = 72.8%

%lamp = 72.8%



- 10% 17.33
- 20% 34.67
- 30% 52.00
- 40% 69.34
- 50% 86.67
- 60% 104.0
- 70% 121.3
- 80% 138.7
- 90% 156.0

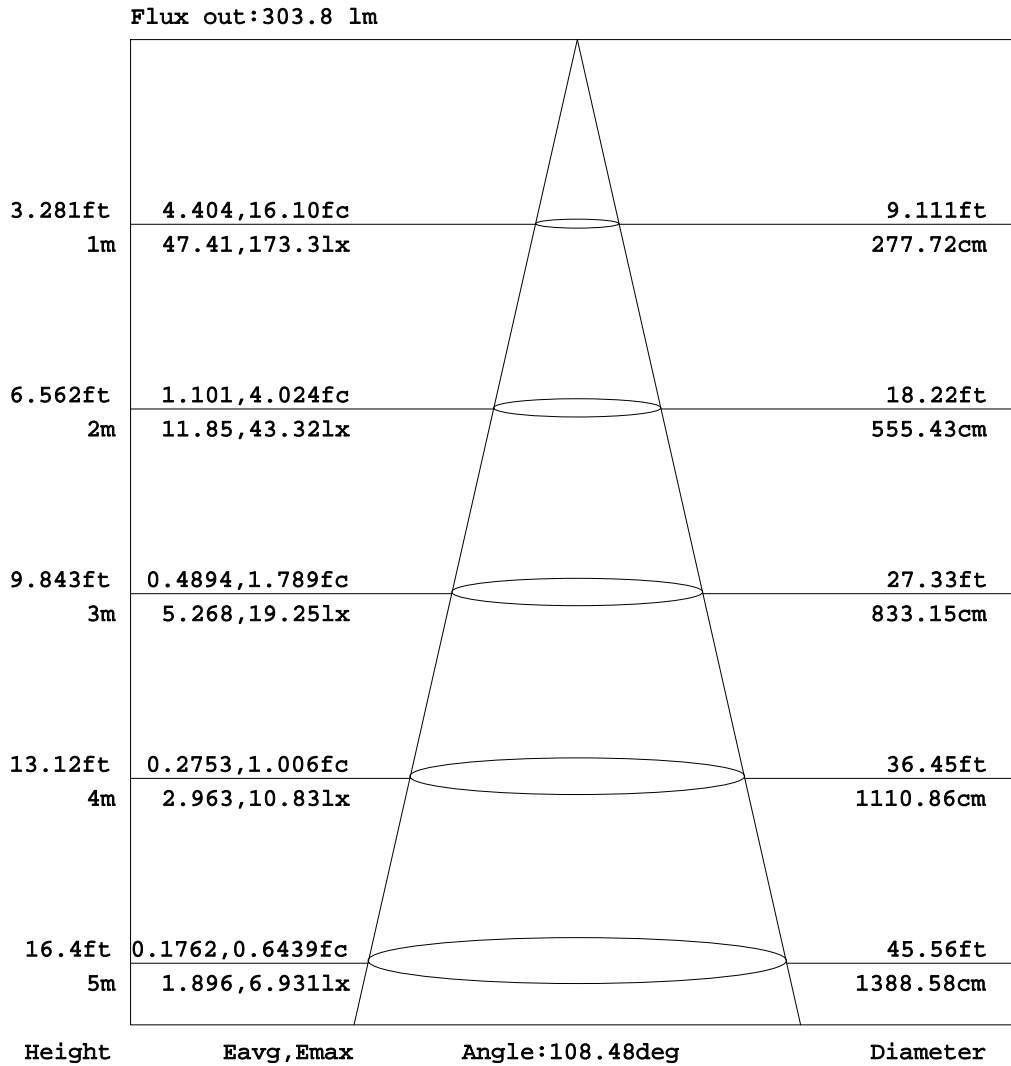
I_{max}:173.3(H2.0,V0.0)
 (At:C=300.0,Gamma=2.0)
 UNIT: cd

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.6DEG
 Operators:David
 Test Date:2016-03-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.287
 Humidity:67.1%
 Test Distance:26.000m [K=1.0000]
 Remarks:

AAI Figure

Test:U:120.1V I:0.0773A P:9.168W PF:0.9872 Lamp Flux:466.169x1 lm		
NAME:	TYPE:BOX-06P-WH	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Blackjack Lighting	SUR.:0.1*0.1	PROTECTION ANGLE:



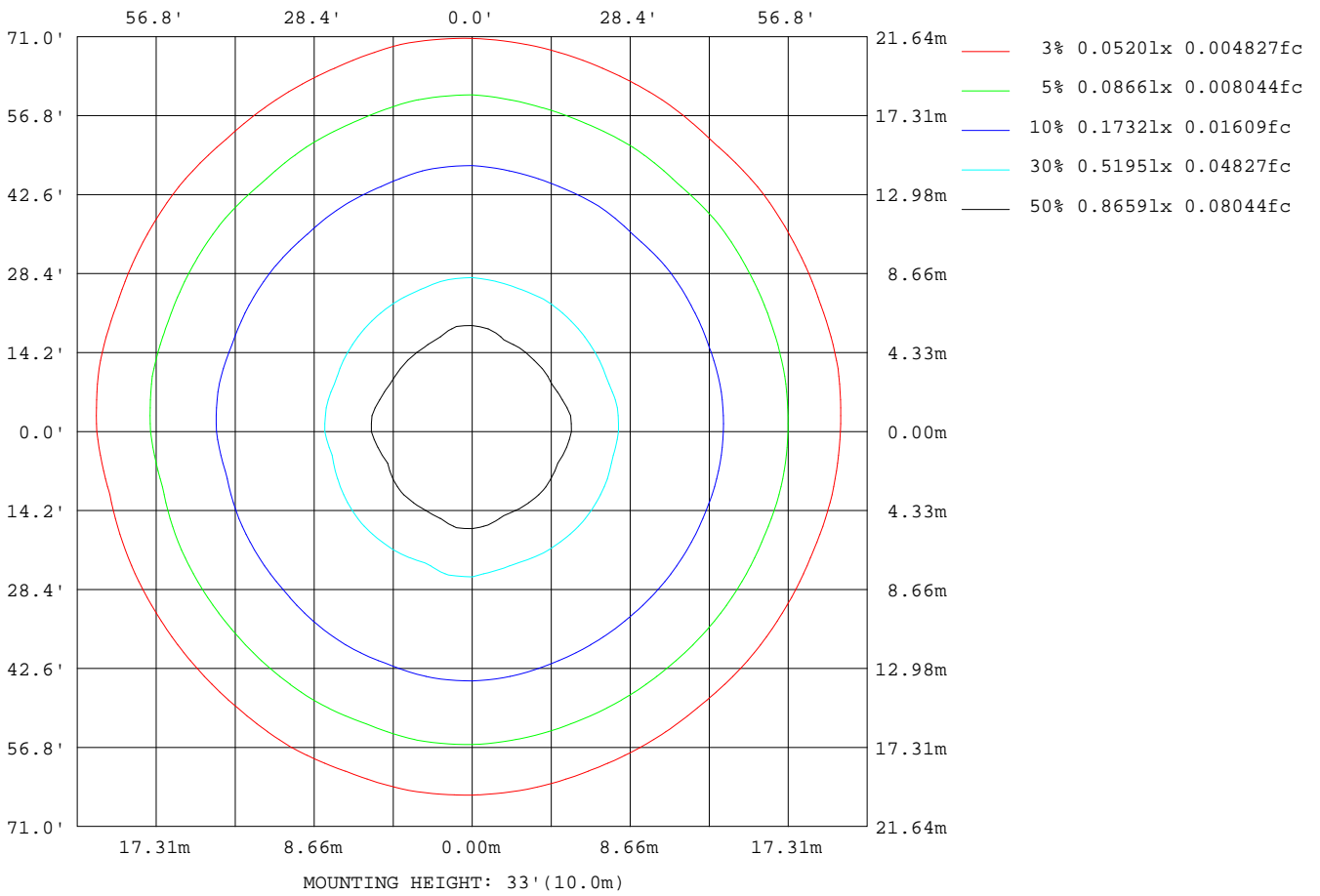
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.6DEG
 Operators:David
 Test Date:2016-03-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.287
 Humidity:67.1%
 Test Distance:26.000m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

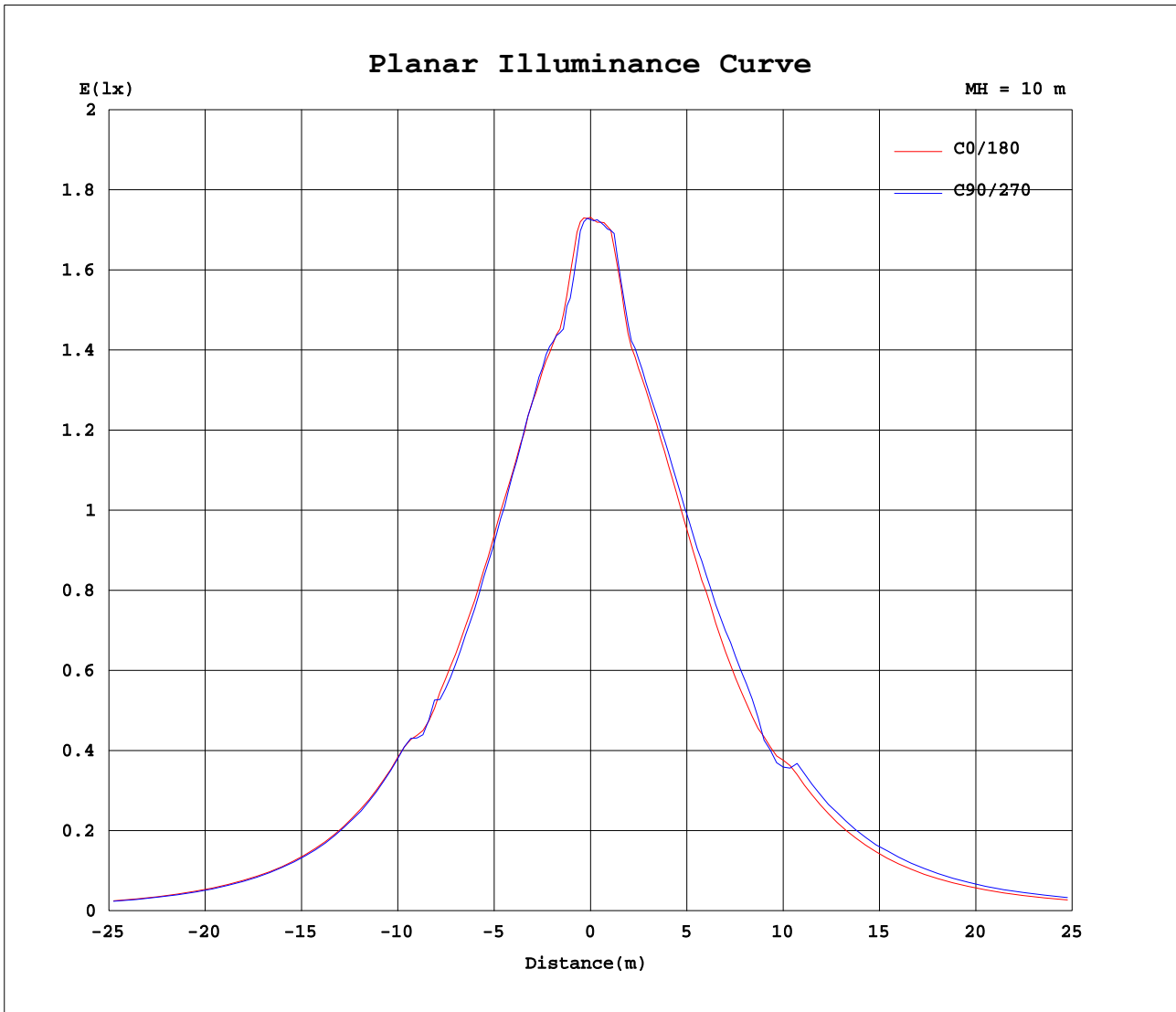
Test:U:120.1V I:0.0773A P:9.168W PF:0.9872 Lamp Flux:466.169x1 lm		
NAME:	TYPE:BOX-06P-WH	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Blackjack Lighting	SUR.:0.1*0.1	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.6DEG
 Operators:David
 Test Date:2016-03-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.287
 Humidity:67.1%
 Test Distance:26.000m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.6DEG
Operators:David
Test Date:2016-03-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.287
Humidity:67.1%
Test Distance:26.000m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.1V I:0.0773A P:9.168W PF:0.9872 Lamp Flux:466.169x1 lm		
NAME:	TYPE:BOX-06P-WH	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Blackjack Lighting	SUR.:0.1*0.1	PROTECTION ANGLE:

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
0	173	173	171	171	172	171	172	172	173	173	172	172	173	171	172	171	172	172	173
5	166	166	167	168	168	165	162	161	161	160	160	161	163	165	170	171	172	172	173
10	151	149	146	139	140	140	143	150	150	150	150	150	150	149	148	149	155	156	156
15	146	146	136	130	131	132	136	143	147	148	148	148	145	137	131	131	137	148	147
20	140	137	128	127	128	128	128	132	140	140	141	139	133	129	130	127	128	139	142
25	134	128	122	124	124	122	122	121	129	132	131	127	123	125	125	124	121	129	135
30	125	121	117	118	117	116	115	114	118	122	123	116	116	117	119	118	116	120	127
35	117	112	111	111	110	109	108	107	108	112	113	107	110	111	111	111	111	111	118
40	105	102	102	103	103	102	101	102	105	106	109	101	102	103	104	104	103	101	108
45	108	104	102	95.8	95.6	94.7	94.3	101	103	108	107	101	95.5	96.3	96.6	95.4	96.4	97.9	106
50	96.0	93.5	90.9	89.4	87.7	87.5	88.9	89.5	91.9	93.7	94.1	92.1	92.8	89.3	89.0	91.2	93.1	93.3	99.9
55	82.6	80.6	78.3	76.9	76.0	75.3	75.9	76.9	79.1	80.7	81.2	78.7	79.7	78.8	78.4	79.6	80.7	81.0	86.8
60	69.0	67.6	65.1	63.8	63.2	62.6	63.2	63.6	65.3	67.0	67.6	65.6	66.1	66.0	65.9	66.8	67.9	68.1	73.0
65	55.3	54.2	52.1	51.0	50.4	49.6	50.2	51.0	52.2	53.2	53.2	52.5	52.9	52.8	53.1	53.5	55.2	55.4	59.5
70	42.4	41.0	39.1	38.6	37.6	37.1	37.5	37.8	39.1	39.9	40.2	39.3	40.1	40.0	40.1	41.1	42.2	42.6	46.2
75	29.0	28.1	26.4	25.9	25.2	24.8	25.1	25.5	25.9	26.7	27.1	26.8	27.3	27.5	27.9	28.7	29.7	30.3	33.2
80	17.1	16.3	15.0	14.3	14.0	13.6	13.7	14.0	14.4	14.8	15.0	15.5	15.8	16.0	16.1	16.6	17.4	18.1	20.3
85	6.65	5.81	5.06	4.62	4.28	4.02	4.04	4.16	4.32	4.50	4.74	4.91	5.15	5.30	5.58	6.17	6.94	7.57	8.74
90	0.06	0.13	0.15	0.15	0.17	0.11	0.13	0.13	0.13	0.08	0.09	0.15	0.17	0.17	0.17	0.17	0.23	0.21	0.18
95	0.02	0.11	0.15	0.13	0.13	0.11	0.13	0.13	0.13	0.07	0.09	0.15	0.15	0.13	0.13	0.13	0.17	0.17	0.06
100	0.02	0.11	0.15	0.13	0.13	0.11	0.13	0.13	0.13	0.07	0.09	0.15	0.15	0.13	0.13	0.13	0.15	0.17	0.13
105	0.02	0.13	0.17	0.13	0.13	0.11	0.13	0.15	0.19	0.07	0.11	0.22	0.15	0.13	0.13	0.13	0.19	0.24	0.19
110	0.19	0.22	0.22	0.24	0.17	0.11	0.20	0.24	0.26	0.24	0.22	0.26	0.22	0.13	0.17	0.22	0.22	0.26	0.32
115	0.26	0.39	0.35	0.31	0.22	0.22	0.65	0.42	0.60	0.48	0.59	0.28	0.24	0.24	0.24	0.24	0.28	0.52	0.50
120	0.56	0.80	0.78	0.81	0.80	0.43	0.52	0.59	1.86	2.27	1.94	0.80	0.78	0.30	0.45	0.48	0.56	0.76	0.75
125	1.56	2.19	3.33	3.61	2.45	1.32	1.06	1.06	1.47	1.19	1.75	0.97	0.84	0.81	2.26	2.39	1.62	1.48	1.33
130	7.56	7.66	6.35	5.27	4.53	4.58	2.58	2.74	1.80	1.40	1.69	2.22	2.34	3.27	4.03	5.16	6.08	6.63	4.64
135	9.58	10.1	8.54	7.91	7.93	7.88	8.15	6.14	3.26	2.77	2.74	4.30	5.52	6.79	6.77	7.44	8.54	9.50	9.16
140	10.9	12.7	11.5	11.3	11.2	11.1	11.4	10.7	10.5	9.67	8.85	9.66	10.5	10.5	10.1	10.3	10.8	11.5	10.8
145	12.4	15.0	14.4	14.1	14.2	14.3	14.3	11.6	12.1	11.6	11.2	11.0	14.0	13.8	13.6	13.4	13.8	13.0	12.3
150	13.6	14.9	15.5	16.7	16.6	16.6	14.7	12.8	13.0	12.8	12.6	12.4	15.8	16.4	16.2	16.3	16.1	14.1	13.6
155	14.2	13.8	16.9	17.6	18.1	16.9	13.3	13.3	13.2	13.3	13.2	13.0	13.2	17.5	18.2	16.9	16.0	14.4	14.2
160	13.6	13.2	18.1	17.3	13.0	13.3	13.2	13.7	13.0	12.9	13.0	13.2	12.5	12.7	17.0	16.9	16.2	13.7	13.7
165	6.03	5.93	5.48	8.95	8.11	6.93	7.57	8.82	10.4	10.4	10.2	9.76	7.55	6.93	7.72	9.52	11.8	11.1	11.4
170	3.59	3.59	3.34	3.16	5.63	5.38	2.67	1.34	0.54	0.50	1.01	1.90	3.83	4.22	4.37	3.90	3.20	3.59	3.43
175	0.70	0.59	0.65	0.89	0.50	0.47	0.45	0.45	1.04	0.41	0.51	0.69	0.86	0.80	0.91	2.28	2.20	2.23	2.03
180	1.49	1.59	1.26	0.83	0.65	0.63	0.26	0.45	0.52	0.43	0.39	0.43	0.47	0.52	0.52	0.50	0.56	0.50	0.48

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.6DEG
 Operators:David
 Test Date:2016-03-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.287
 Humidity:67.1%
 Test Distance:26.000m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.1V I:0.0773A P:9.168W PF:0.9872 Lamp Flux:466.169x1 lm		
NAME:	TYPE:BOX-06P-WH	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Blackjack Lighting	SUR.:0.1*0.1	PROTECTION ANGLE:

Table--2

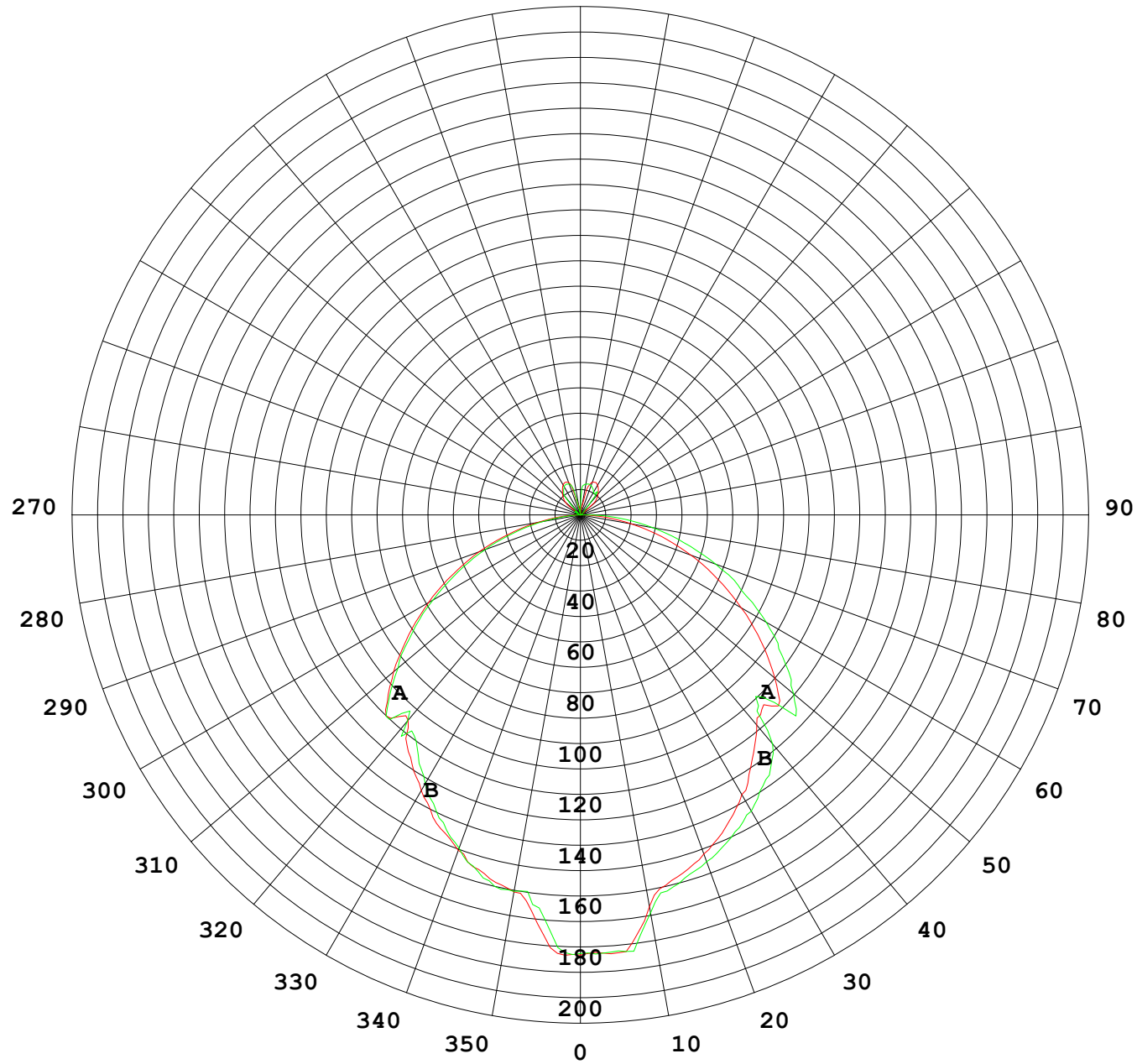
UNIT: cd

C (DEG) γ (DEG)	190	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350		
0	173	171	171	172	171	172	172	173	173	172	172	173	171	172	171	172	172		
5	173	171	172	173	173	172	172	173	172	173	173	173	171	171	169	167	167		
10	157	158	161	167	168	165	162	159	159	160	161	159	156	156	151	150	150		
15	148	148	147	141	140	146	150	150	150	150	146	137	132	138	144	146	145		
20	142	143	135	131	131	134	144	145	145	146	136	131	130	130	132	140	140		
25	135	132	126	127	127	128	134	141	140	139	127	128	127	125	124	130	134		
30	128	122	121	122	123	124	124	134	135	131	123	123	122	121	119	119	126		
35	120	114	115	117	117	118	120	127	127	123	118	118	116	116	113	112	118		
40	108	107	109	110	111	112	113	117	118	113	112	113	110	108	107	105	106		
45	103	100	101	103	105	104	98.0	96.9	101	96.2	96.3	103	103	102	99.1	103	109		
50	101	99.2	97.8	95.3	95.0	95.7	104	108	110	105	103	96.7	94.3	95.4	96.0	95.5	96.9		
55	88.5	86.6	87.7	88.7	88.6	91.0	92.4	96.8	97.1	93.7	91.0	89.6	85.6	85.5	84.1	83.2	83.4		
60	75.3	74.5	75.1	76.3	76.2	78.4	80.2	83.8	84.5	81.0	78.0	76.6	73.4	73.5	71.5	70.5	70.0		
65	61.4	60.9	62.1	63.6	63.5	65.4	67.3	70.3	69.8	68.2	65.8	63.5	60.5	60.2	58.5	56.9	57.1		
70	47.8	47.9	48.8	50.5	50.5	53.1	56.0	57.2	56.7	54.2	52.0	50.6	47.7	47.4	45.4	44.0	43.5		
75	34.6	34.8	36.0	37.4	39.2	40.6	40.4	42.5	42.1	40.7	38.8	37.4	35.3	34.6	33.0	31.4	30.7		
80	21.9	22.7	23.8	25.1	25.1	26.5	27.5	28.8	28.9	27.7	25.8	24.6	22.9	22.1	20.7	19.5	18.5		
85	10.3	11.3	12.2	13.2	13.5	14.4	15.0	15.8	15.9	14.7	13.4	12.5	11.2	10.7	9.53	8.55	7.71		
90	0.71	1.22	1.72	2.33	2.58	3.10	3.52	3.98	3.98	3.51	2.64	1.75	0.99	0.40	0.15	0.13	0.09		
95	0.11	0.09	0.07	0.07	0.09	0.11	0.11	0.09	0.06	0.07	0.11	0.09	0.09	0.11	0.13	0.11	0.09		
100	0.15	0.13	0.09	0.11	0.13	0.15	0.17	0.13	0.09	0.13	0.13	0.13	0.11	0.13	0.15	0.17	0.15		
105	0.24	0.22	0.15	0.13	0.15	0.20	0.22	0.22	0.15	0.19	0.20	0.17	0.17	0.20	0.19	0.24	0.22		
110	0.34	0.33	0.24	0.20	0.22	0.26	0.35	0.39	0.30	0.32	0.26	0.24	0.20	0.24	0.30	0.35	0.35		
115	0.50	0.48	0.35	0.30	0.30	0.33	0.41	0.50	0.43	0.49	0.39	0.30	0.30	0.35	0.41	0.47	0.54		
120	0.73	0.67	0.52	0.43	0.43	0.47	0.54	0.63	0.60	0.69	0.58	0.49	0.46	0.62	0.76	0.71	0.78		
125	1.30	1.17	1.06	1.02	0.69	0.71	0.78	0.95	0.90	1.21	0.91	0.88	1.00	1.64	2.56	1.51	1.58		
130	4.57	4.73	4.02	3.17	1.60	1.41	1.43	1.41	1.32	1.55	1.91	1.87	2.08	3.73	4.29	5.29	6.45		
135	8.77	7.10	5.84	5.37	5.94	3.30	3.20	2.18	2.11	2.26	3.51	3.69	5.97	6.08	6.45	7.41	8.96		
140	11.0	9.35	8.66	8.17	8.25	8.87	9.43	5.71	4.75	4.56	6.54	11.3	9.28	9.11	9.58	10.2	11.4		
145	13.5	12.4	11.5	11.1	11.0	11.2	10.6	9.43	10.6	10.4	8.92	11.6	11.8	12.2	12.7	13.5	13.9		
150	15.8	15.3	14.4	14.0	13.7	13.4	10.2	10.2	10.5	10.2	10.1	12.3	14.4	15.2	15.4	16.0	16.2		
155	17.9	17.7	17.0	16.3	15.7	14.5	11.2	11.5	11.5	11.5	11.7	11.6	15.2	17.0	17.6	18.1	17.8		
160	18.8	19.3	18.4	17.6	16.4	12.3	12.2	12.5	12.2	12.4	12.4	12.7	12.5	14.0	18.0	19.2	18.7		
165	13.5	18.5	17.6	14.1	13.0	12.8	12.7	12.9	12.6	12.6	12.4	12.9	13.2	13.2	13.2	13.5	13.0		
170	3.74	9.27	12.4	12.8	12.9	12.8	13.0	12.3	12.3	12.1	12.0	12.1	11.8	13.3	13.3	12.8	11.4		
175	1.99	3.57	6.69	10.3	11.3	11.3	11.6	11.7	11.6	11.4	11.8	11.4	11.3	11.1	10.4	7.58	4.06		
180	0.48	0.48	0.48	0.50	0.48	0.47	0.43	0.46	0.45	0.46	0.42	0.49	0.46	0.49	0.50	0.49	0.53		

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.6DEG
 Operators:David
 Test Date:2016-03-21

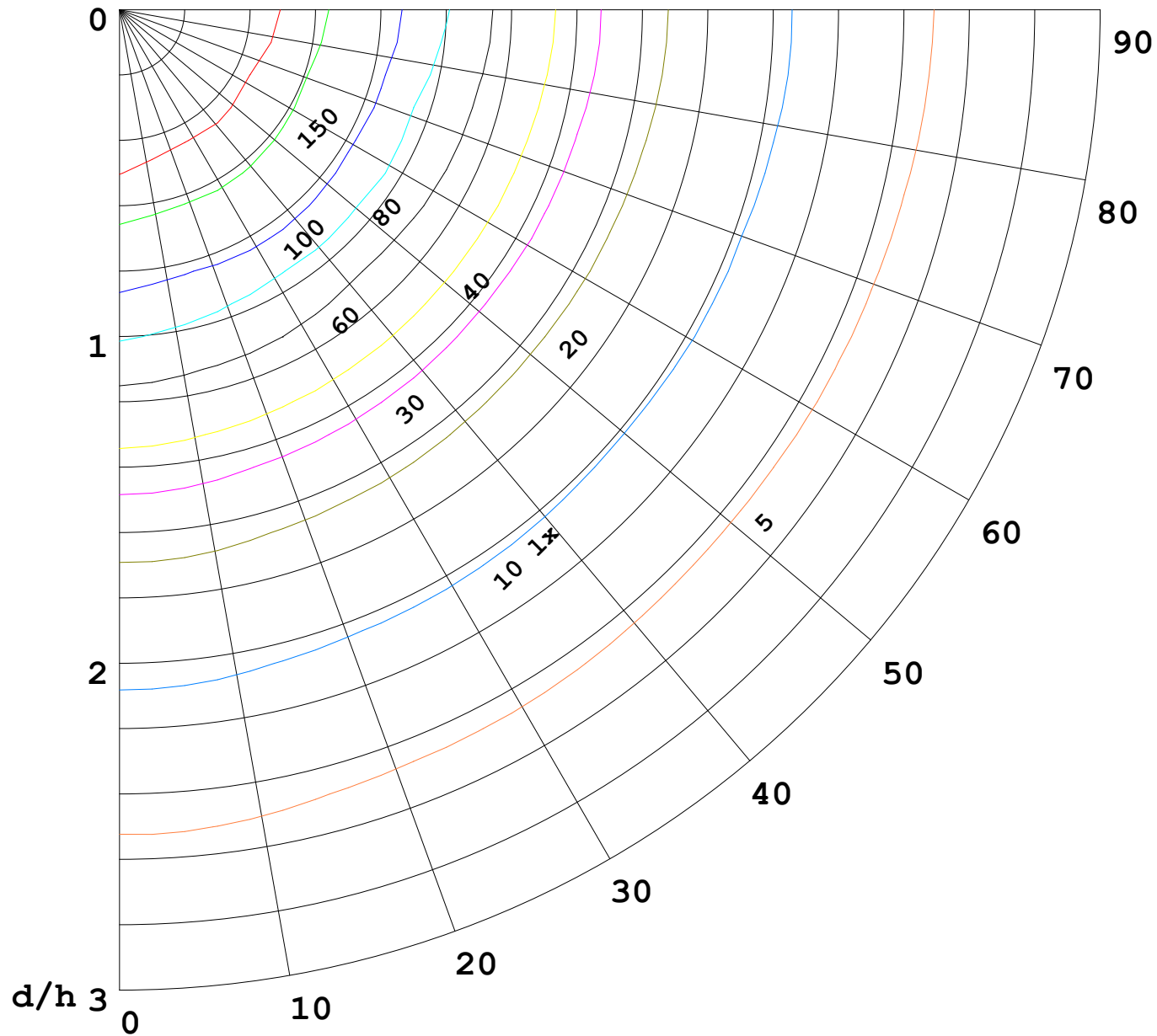
γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.287
 Humidity:67.1%
 Test Distance:26.000m [K=1.0000]
 Remarks:

I (cd)



1000 lm

$K = 1$



F = 5000 lm
K = 0.7
Hcc = 0.0 m
Hfc = 0.0 m
Eave = 100 lx

	Pcc	Pw	Pfc
—————	70	50	30
—————	50	30	20

