IESNA LM-79 TEST REPORT

Applicant's name .....:	Blackjack Lighting
Address .....:	1553 Barclay Blvd. Buffalo Grove, IL 60089
Brand Name.....:	Blackjack Lighting
Report No......:	BTR66.181.17.0032.34
Product Name.....:	Frame - Steelos Single Pendant
Model Number .....:	STL-06P-BL or PC-BD

Tested by
(printed name and signature) .....: David Zhang .....
Title .....: **Test Engineer**

Approved by
(printed name and signature) .....: Steven Huo .....
Title .....: **Approved Signatory**

Date of issue .....: Jun 20, 2018

Testing Laboratory Name .....:	BEST Test Service Shenzhen Co., Ltd.
Address .....:	1st Floor, 1st Building, Weitai Industrial Park, Yingrenshi, Shiyan, Baoan, Shenzhen, China Tel:+86-755-28236006, Email: certification@bestcert.cn
Accrediation .....:	DLC/Lighting Facts/UL/ETL/ELI/CEC/EPA/DOE NVLAP Testing Lab Code: 200770-0

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

description:	
Test date.....:	Jun 14, 2018 to Jun 20, 2018
Sample Quantity .....:	1 unit
SKU.....:	N/A
Rating(s) (V; Hz) .....:	120V 60HZ
Nominal Power.....:	10.5W
Nominal Power Factor .....:	N/A
Nominal Lumen Output.....:	380lm
Nominal CCT .....:	2700K
Nominal CRI(Ra) .....:	90
Number of hours operated prior to measurement	0H
Total operating time of the product for measurements including stabilization	2.5H
Ambient temperature	24.7℃
Orientation (burning position) of SSL product during test	Lighting Surface Down or Base Up
Stabilization time	1.0 H
Photometric method	Sphere-spectroradiometer+Goniophotometer
Calibration standard lamp used	DC 24V 100W Omni-Directional Halogen Calibrated by NIM China(Sphere) DC 120V 500W Omni-Directional Halogen Calibrated by NIM China(Goniophotometer)
Correction factors applied	Self absorbing applied
Photometric measurement conditions	See test method description below
Equipments used	EVERFINE HASS-2000 Sphere System CHROMA 61602 AC Source YOKOGAWA WT 310 Power Meter FLUKE 52II EVERFINE GOR-5000 Goniophotometer CALIFORNIA INSTRUMENT 1501I AC Source YOKOGAWA WT 210 Power Meter FLUKE 233 Temperature Meter
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℃ ±1℃ ambient temperature conditions is measured using a EVERFINE 2.0 m 4 Π 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.

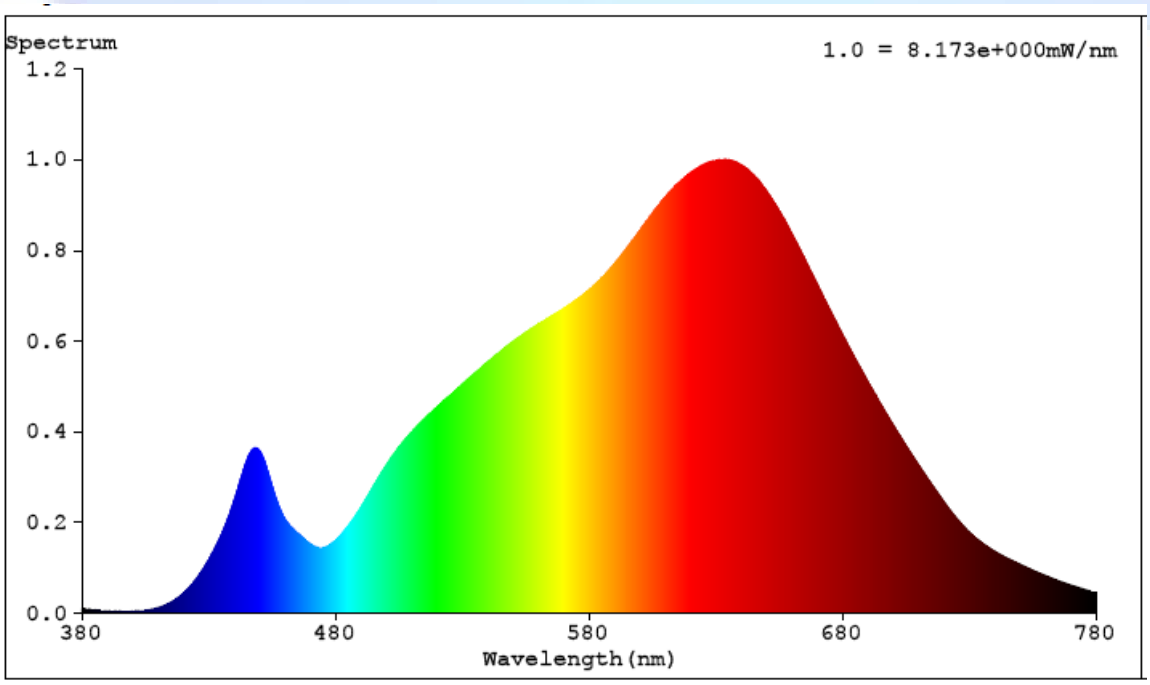
Luminious Intensity

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

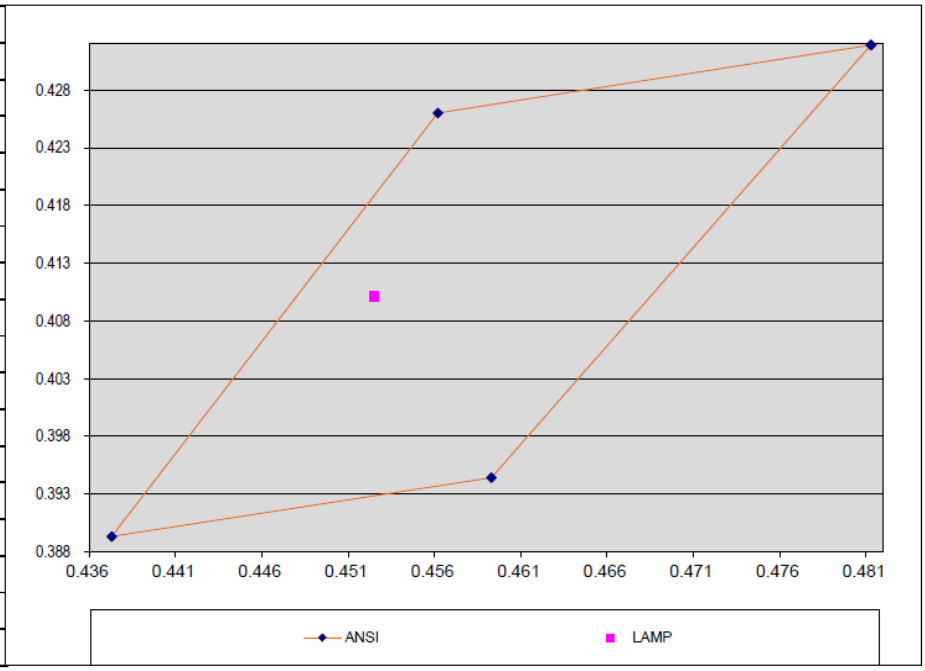
Input Voltage (V)	Frequency (Hz)	Input Current (A)	ITHD	Input Power (W)	Power Factor	Lumen Output (Lumens)	Efficiency Lumen/w
120.0	60.0	0.0893	/	10.39	0.9686	387.24	37.28
CCT (K)	CRI (Ra)	R9	x CIE1931	y CIE1931	u' CIE1976	v' CIE1976	Duv CIE1976
2803	94.3	75	0.4525	0.4101	0.2579	0.5261	0.0005

Spectrul Plots



7 Step Quadrangle

	2700K quadrangle	
	x	y
ANSI 78.377-2015	0.4813	0.4319
	0.4562	0.4260
	0.4373	0.3893
	0.4593	0.3944
	0.4813	0.4319
Center		
1	0.4525	0.4101
2		
3		
4		
5		
6		
7		
8		
9		
10		



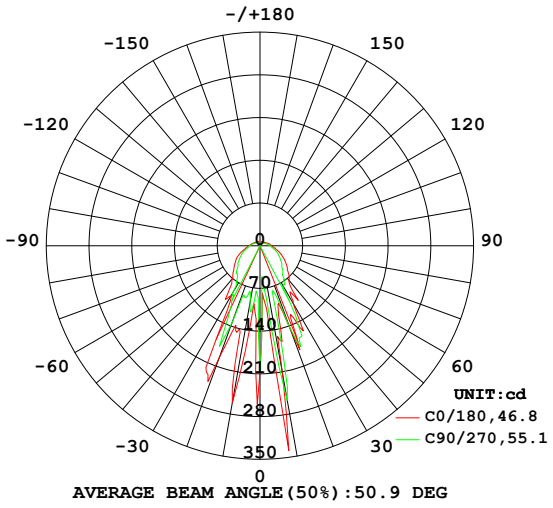
EUT Photo

LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.00V I:0.0893A P:10.388W PF:0.9686 Freq:60.00Hz Lamp Flux:387.237x1 lm		
NAME:	TYPE:STL-06P-BL or PC-BD	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Blackjack Lighting	SUR.:	Shielding Angle:

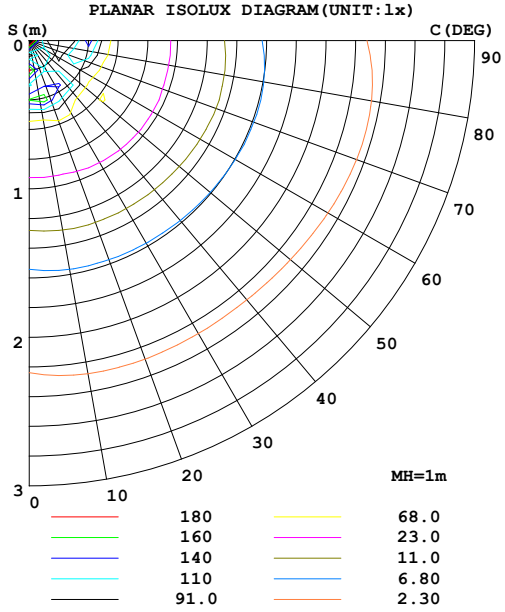
DATA OF LAMP		PHOTOMETRIC DATA		Eff: 37.28 lm/W	
MODEL STL-06P-BL or PC-BD		Imax(cd)	362.7	S/MH(C0/180)	0.07
NOMINAL POWER(W)	10.5	LOR(%)	100.0	S/MH(C90/270)	0.07
RATED VOLTAGE(V)	120.0	TOTAL FLUX(lm)	387.24	η UP,DN(C0-180)	8.4,41.4
NOMINAL FLUX(lm)	387.237	CIE CLASS	SEMI-D.	η UP,DN(C180-360)	8.1,42.0
LAMPS INSIDE	1	η up(%)	16.6	CIBSE SHR NOM	0.00
TEST VOLTAGE(V)	120.0	η down(%)	83.4	CIBSE SHR MAX	1.00

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



AVERAGE BEAM ANGLE(50%):50.9 DEG

PLANAR ISOLUX DIAGRAM(UNIT:lx)



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.6DEG
Operators:David
Test Date:20 June 2018

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.366
Humidity:67.1%
Test Distance:2.457m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

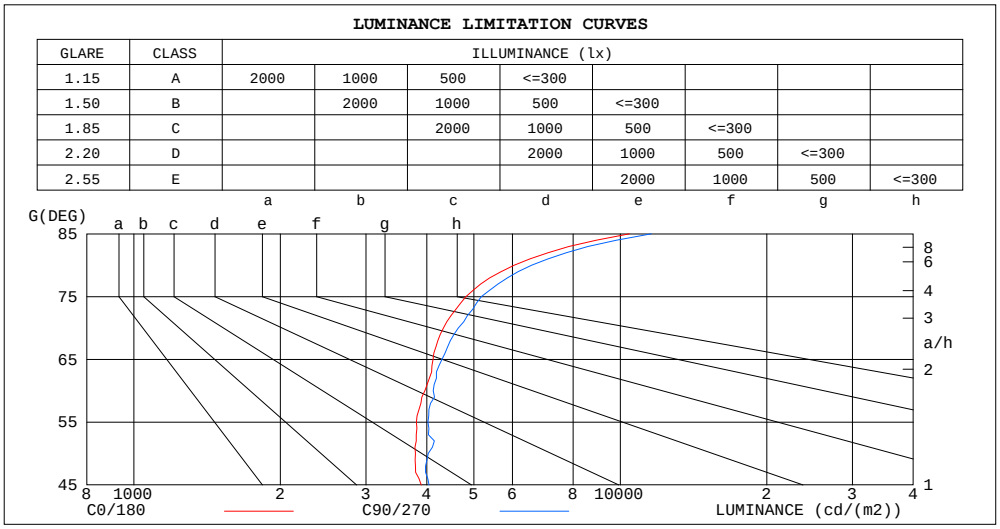
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	261.3	134.7	94.18	142.7	213.5	215.9	257.3	160.1	0- 10	13.35	13.35	3.45,3.45
20	194.9	146.0	134.0	111.3	145.2	109.9	142.2	127.8	10- 20	34.66	48.01	12.4,12.4
30	94.87	106.8	89.75	77.64	109.1	84.20	76.33	79.31	20- 30	56.79	104.8	27.1,27.1
40	70.63	74.59	59.08	59.04	74.20	68.53	59.16	63.03	30- 40	47.90	152.7	39.4,39.4
50	55.72	60.09	47.11	47.11	58.60	55.95	46.95	49.51	40- 50	43.82	196.5	50.7,50.7
60	45.32	48.02	37.53	37.51	46.36	45.40	36.96	39.74	50- 60	40.89	237.4	61.3,61.3
70	33.84	36.57	28.91	28.71	35.06	34.73	29.04	31.62	60- 70	35.72	273.1	70.5,70.5
80	24.02	26.99	20.76	21.01	25.04	25.02	21.08	22.27	70- 80	28.31	301.4	77.8,77.8
90	19.06	21.24	16.97	16.42	19.60	19.44	16.93	16.89	80- 90	21.63	323.1	83.4,83.4
100	14.90	16.68	13.67	13.14	16.16	14.68	13.09	13.39	90-100	17.13	340.2	87.9,87.9
110	12.39	13.51	11.02	10.68	13.05	11.90	10.43	11.14	100-110	13.44	353.6	91.3,91.3
120	10.35	11.19	8.715	9.324	10.32	9.812	8.314	9.396	110-120	10.31	364.0	94,94
130	9.020	9.839	7.908	8.143	9.168	8.595	7.241	7.982	120-130	7.884	371.8	96,96
140	8.453	9.320	7.283	7.960	8.714	7.749	6.631	7.307	130-140	6.115	378.0	97.6,97.6
150	8.378	9.105	6.478	7.692	8.300	7.667	6.218	7.073	140-150	4.719	382.7	98.8,98.8
160	7.057	8.147	4.894	5.828	6.273	6.834	4.605	5.250	150-160	3.195	385.9	99.6,99.6
170	2.931	3.192	2.196	2.622	2.302	3.085	2.387	2.220	160-170	1.236	387.1	100,100
180	0	0	0	0	0	0	0	0	170-180	0.1292	387.2	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.6DEG
Operators:David
Test Date:20 June 2018

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.366
Humidity:67.1%
Test Distance:2.457m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:120.00V I:0.0893A P:10.388W PF:0.9686 Freq:60.00Hz Lamp Flux:387.237x1 lm		
NAME:	TYPE:STL-06P-BL or PC-BD	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Blackjack Lighting	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	10434	11573
80	6050	6571
75	4816	5180
70	4328	4645
65	4122	4301
60	3965	4125
55	3808	4022
50	3792	4027
45	3897	4044

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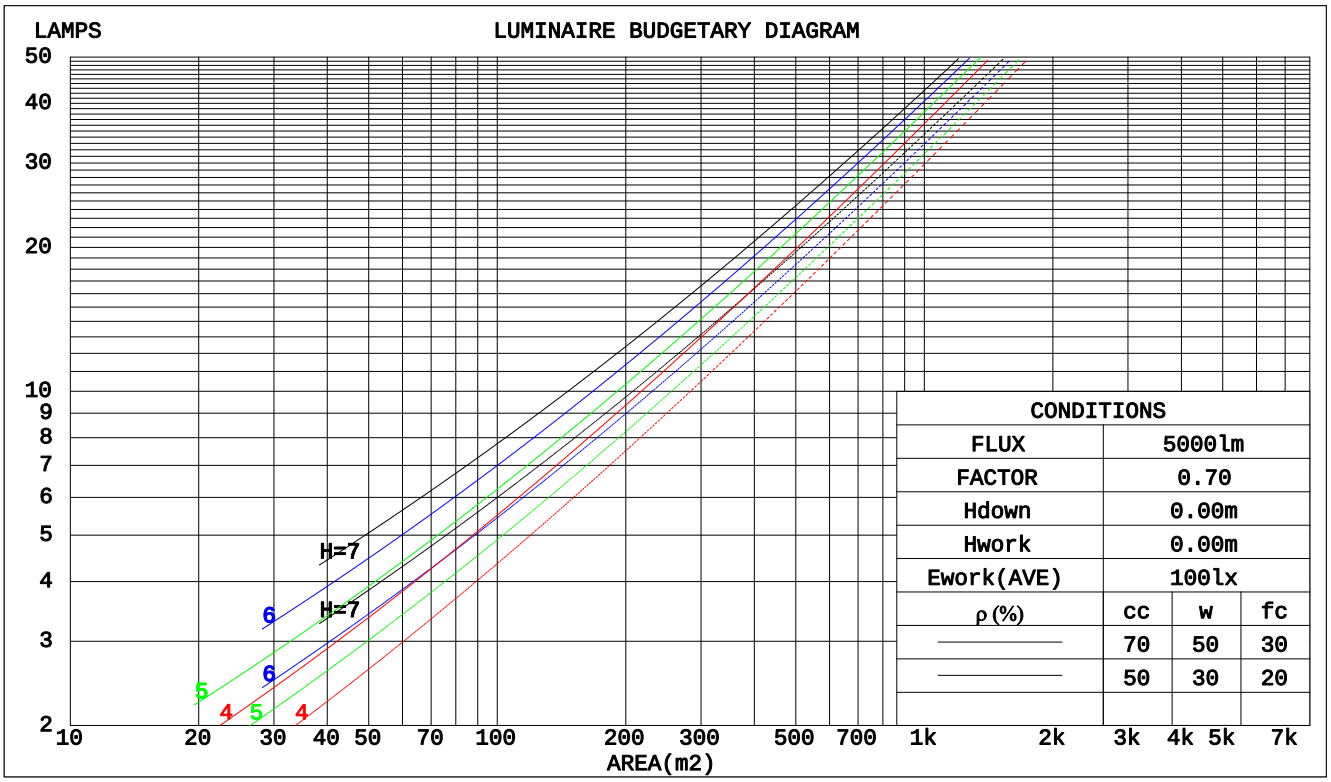
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.366
Humidity:67.1%
Test Distance:2.457m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.00V I:0.0893A P:10.388W PF:0.9686 Freq:60.00Hz Lamp Flux:387.237x1 lm		
NAME:	TYPE:STL-06P-BL or PC-BD	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Blackjack Lighting	SUR.:	Shielding 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			Coefficients of Utilization(CU)												
0.0	1.15	1.15	1.15	1.10	1.10	1.10	1.02	1.02	1.02	.94	.94	.94	.87	.87	.87	.83
1.0	.98	.94	.89	.94	.90	.86	.87	.84	.81	.80	.78	.75	.74	.72	.70	.67
2.0	.86	.79	.73	.82	.76	.70	.76	.71	.66	.70	.66	.62	.65	.62	.59	.56
3.0	.75	.67	.61	.73	.65	.59	.67	.61	.56	.62	.57	.53	.58	.54	.50	.47
4.0	.67	.59	.52	.65	.57	.51	.60	.53	.48	.56	.50	.46	.52	.47	.43	.41
5.0	.60	.52	.45	.58	.50	.44	.54	.47	.42	.51	.45	.40	.47	.42	.38	.36
6.0	.55	.46	.40	.53	.45	.39	.49	.42	.37	.46	.40	.36	.43	.38	.34	.32
7.0	.50	.41	.35	.48	.40	.35	.45	.38	.33	.42	.36	.32	.40	.35	.31	.28
8.0	.46	.37	.32	.44	.37	.31	.42	.35	.30	.39	.33	.29	.37	.32	.28	.26
9.0	.42	.34	.29	.41	.33	.28	.38	.32	.27	.36	.30	.26	.34	.29	.25	.23
10.0	.39	.31	.26	.38	.31	.26	.36	.29	.25	.34	.28	.24	.32	.27	.23	.21



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.6DEG
Operators:David
Test Date:20 June 2018

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.366
Humidity:67.1%
Test Distance:2.457m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:120.00V I:0.0893A P:10.388W PF:0.9686 Freq:60.00Hz Lamp Flux:387.237x1 lm		
NAME:	TYPE:STL-06P-BL or PC-BD	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Blackjack Lighting	SUR.:	Shielding 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 Coeffcients(WEC)									
0.0																
1.0	.341	.194	.061	.328	.187	.060	.306	.175	.056	.285	.164	.053	.265	.154	.050	
2.0	.300	.164	.050	.289	.159	.049	.268	.149	.046	.249	.140	.044	.232	.131	.041	
3.0	.269	.143	.043	.259	.139	.042	.241	.131	.040	.224	.123	.038	.208	.115	.036	
4.0	.245	.127	.037	.236	.123	.036	.219	.116	.035	.204	.109	.033	.189	.103	.031	
5.0	.224	.114	.033	.216	.111	.032	.201	.105	.031	.187	.098	.029	.174	.093	.028	
6.0	.206	.103	.030	.199	.101	.029	.185	.095	.028	.172	.090	.026	.160	.084	.025	
7.0	.191	.095	.027	.185	.092	.026	.172	.087	.025	.160	.082	.024	.149	.078	.023	
8.0	.178	.087	.025	.172	.085	.024	.161	.080	.023	.150	.076	.022	.140	.072	.021	
9.0	.167	.081	.023	.161	.079	.022	.151	.075	.021	.141	.071	.020	.131	.067	.019	
10.0	.157	.075	.021	.152	.073	.020	.142	.069	.020	.133	.066	.019	.124	.062	.018	

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	.317	.317	.317	.271	.271	.271	.185	.185	.185	.106	.106	.106	.034	.034	.034	
1.0	.310	.283	.259	.265	.243	.223	.181	.167	.154	.104	.097	.090	.033	.031	.029	
2.0	.301	.260	.225	.258	.224	.195	.177	.155	.136	.102	.090	.080	.033	.029	.026	
3.0	.293	.243	.203	.251	.210	.176	.173	.146	.124	.100	.085	.073	.032	.028	.024	
4.0	.285	.230	.188	.245	.199	.164	.168	.139	.115	.097	.081	.068	.031	.026	.022	
5.0	.277	.220	.178	.238	.191	.155	.164	.133	.109	.095	.078	.065	.031	.025	.021	
6.0	.270	.212	.170	.232	.184	.148	.160	.129	.105	.093	.076	.062	.030	.025	.021	
7.0	.263	.205	.165	.226	.178	.144	.156	.125	.102	.091	.074	.061	.029	.024	.020	
8.0	.257	.200	.160	.221	.173	.140	.153	.122	.099	.089	.072	.059	.029	.024	.020	
9.0	.251	.195	.157	.216	.169	.137	.150	.119	.097	.087	.070	.058	.028	.023	.019	
10.0	.245	.191	.154	.211	.166	.135	.147	.117	.096	.086	.069	.057	.028	.023	.019	

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.6DEG
Operators:David
Test Date:20 June 2018

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.366
Humidity:67.1%
Test Distance:2.457m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:120.00V I:0.0893A P:10.388W PF:0.9686 Freq:60.00Hz Lamp Flux:387.237x1 lm		
NAME:	TYPE:STL-06P-BL or PC-BD	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Blackjack Lighting	SUR.:	Shielding 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	16.1	17.4	16.6	17.9	18.4	16.5	17.8	17.0	18.2	18.7
3H	18.1	19.3	18.6	19.8	20.3	18.5	19.7	19.0	20.2	20.8
4H	19.1	20.2	19.6	20.7	21.3	19.6	20.7	20.1	21.2	21.8
6H	20.2	21.2	20.7	21.8	22.4	20.7	21.7	21.2	22.3	22.9
8H	20.8	21.8	21.3	22.3	23.0	21.3	22.3	21.9	22.9	23.5
12H	21.5	22.5	22.1	23.0	23.7	22.0	23.0	22.6	23.6	24.2
4H 2H	16.9	18.0	17.4	18.5	19.1	17.1	18.3	17.7	18.8	19.4
3H	19.1	20.1	19.7	20.6	21.3	19.5	20.4	20.0	21.0	21.6
4H	20.3	21.2	20.9	21.7	22.4	20.7	21.6	21.3	22.2	22.9
6H	21.5	22.3	22.2	22.9	23.6	22.0	22.8	22.6	23.4	24.1
8H	22.2	23.0	22.9	23.6	24.3	22.7	23.5	23.4	24.1	24.8
12H	23.1	23.7	23.7	24.4	25.1	23.6	24.3	24.2	24.9	25.7
8H 4H	20.8	21.5	21.4	22.2	22.9	21.2	21.9	21.8	22.5	23.3
6H	22.3	23.0	23.0	23.6	24.4	22.8	23.4	23.4	24.1	24.8
8H	23.3	23.8	23.9	24.5	25.3	23.7	24.3	24.4	24.9	25.7
12H	24.3	24.8	25.0	25.5	26.3	24.8	25.3	25.5	26.0	26.8
12H 4H	20.9	21.6	21.6	22.2	23.0	21.2	21.9	21.9	22.6	23.3
6H	22.6	23.2	23.3	23.8	24.6	23.0	23.5	23.7	24.2	25.0
8H	23.6	24.1	24.3	24.8	25.6	24.0	24.5	24.7	25.2	26.0
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.2					+ 0.1 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.4					+ 0.2 / - 0.4				

CIE Pub.117, 387.2 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = -3.3)

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.6DEG
Operators:David
Test Date:20 June 2018

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.366
Humidity:67.1%
Test Distance:2.457m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:120.00V I:0.0893A P:10.388W PF:0.9686 Freq:60.00Hz Lamp Flux:387.237x1 lm		
NAME:	TYPE:STL-06P-BL or PC-BD	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Blackjack Lighting	SUR.:	Shielding Angle:

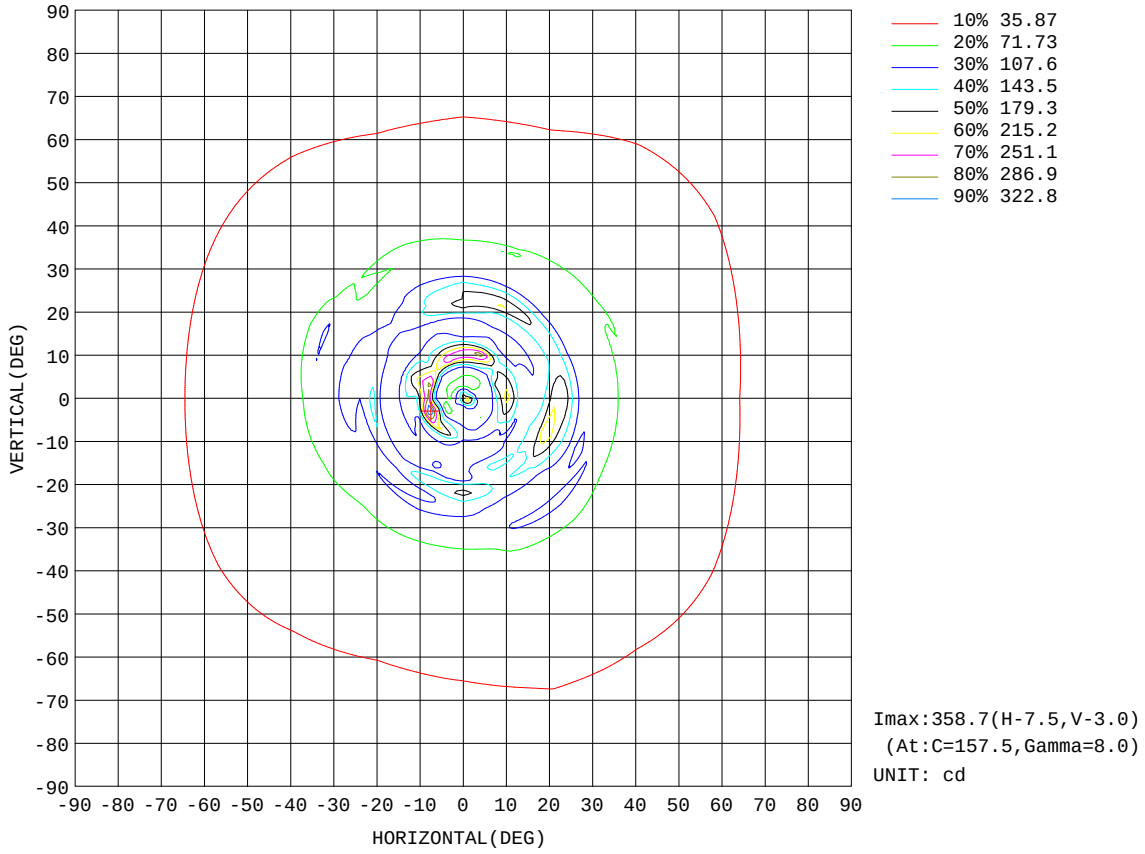
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	54	43	36	53	43	36	51	42	36	29
0.80	63	52	44	62	51	44	59	49	43	36
1.00	70	59	51	69	58	51	65	58	50	42
1.25	77	66	58	75	64	57	71	62	56	47
1.50	82	71	63	79	69	62	74	66	60	50
2.00	88	78	71	85	76	70	80	73	67	56
2.50	92	83	76	89	81	75	83	76	71	59
3.00	96	87	81	92	85	79	86	80	75	62
4.00	100	93	87	96	90	85	89	84	80	66
5.00	102	96	91	98	93	89	91	87	83	69
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004				Suspended					SHRNOM = 1.25	

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.6DEG
Operators:David
Test Date:20 June 2018

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.366
Humidity:67.1%
Test Distance:2.457m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:120.00V I:0.0893A P:10.388W PF:0.9686 Freq:60.00Hz Lamp Flux:387.237x1 lm		
NAME:	TYPE:STL-06P-BL or PC-BD	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Blackjack Lighting	SUR.:	Shielding Angle:



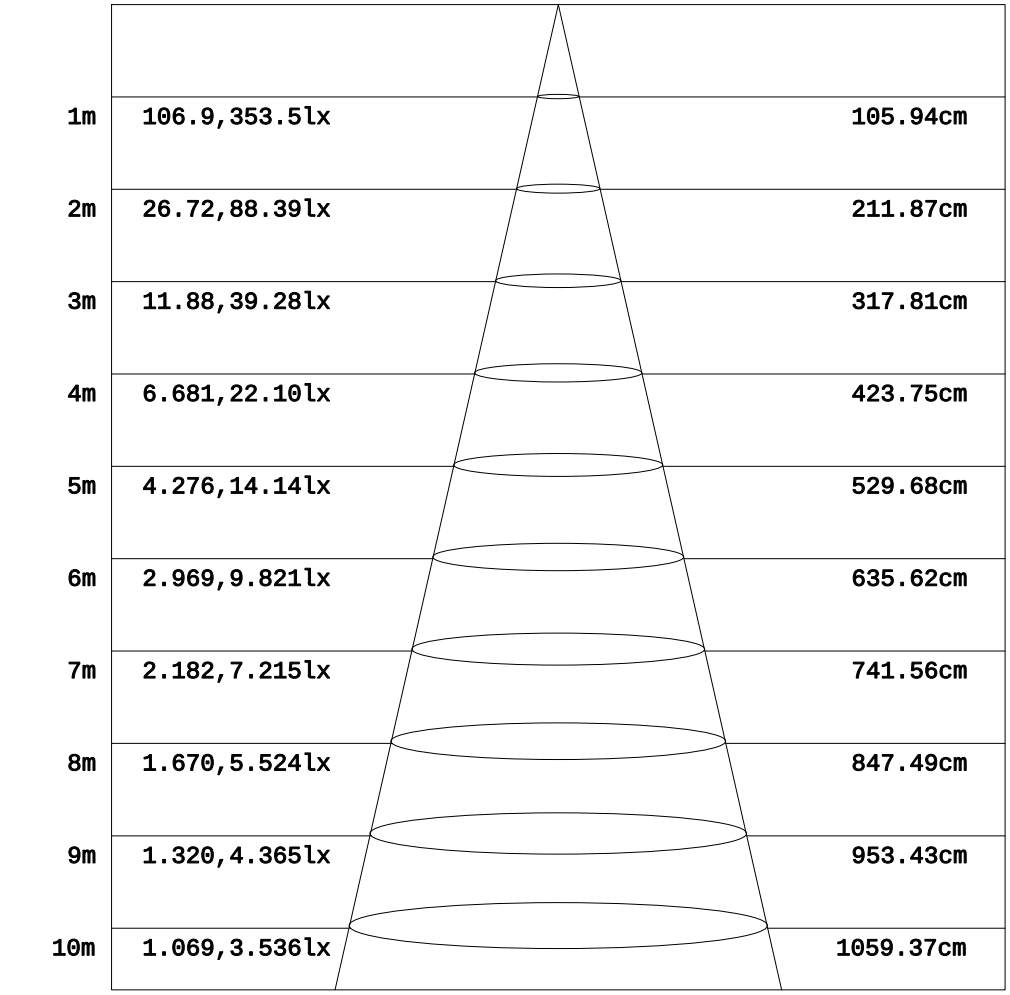
C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.6DEG
Operators:David
Test Date:20 June 2018

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.366
Humidity:67.1%
Test Distance:2.457m [K=1.0000]
Remarks:

AAI Figure

Test:U:120.00V I:0.0893A P:10.388W PF:0.9686 Freq:60.00Hz Lamp Flux:387.237x1 lm		
NAME:	TYPE:STL-06P-BL or PC-BD	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Blackjack Lighting	SUR.:	Shielding Angle:

Flux out:94.94 lm



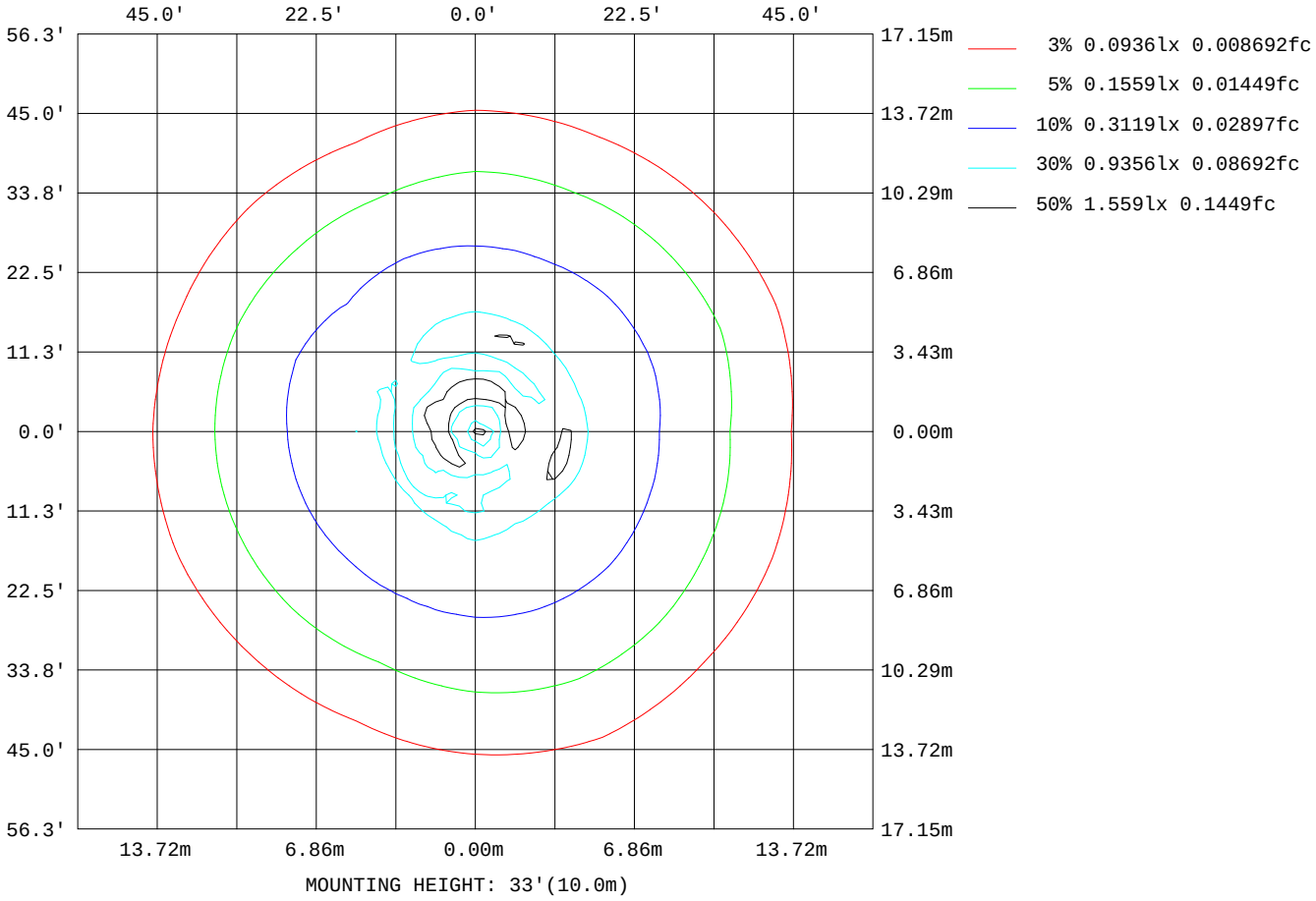
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.6DEG
Operators:David
Test Date:20 June 2018

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.366
Humidity:67.1%
Test Distance:2.457m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:120.00V I:0.0893A P:10.388W PF:0.9686 Freq:60.00Hz Lamp Flux:387.237x1 lm		
NAME:	TYPE:STL-06P-BL or PC-BD	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Blackjack Lighting	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.6DEG
Operators:David
Test Date:20 June 2018

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.366
Humidity:67.1%
Test Distance:2.457m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:120.00V I:0.0893A P:10.388W PF:0.9686 Freq:60.00Hz Lamp Flux:387.237x1 lm		
NAME:	TYPE:STL-06P-BL or PC-BD	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Blackjack Lighting	SUR.:	Shielding Angle:

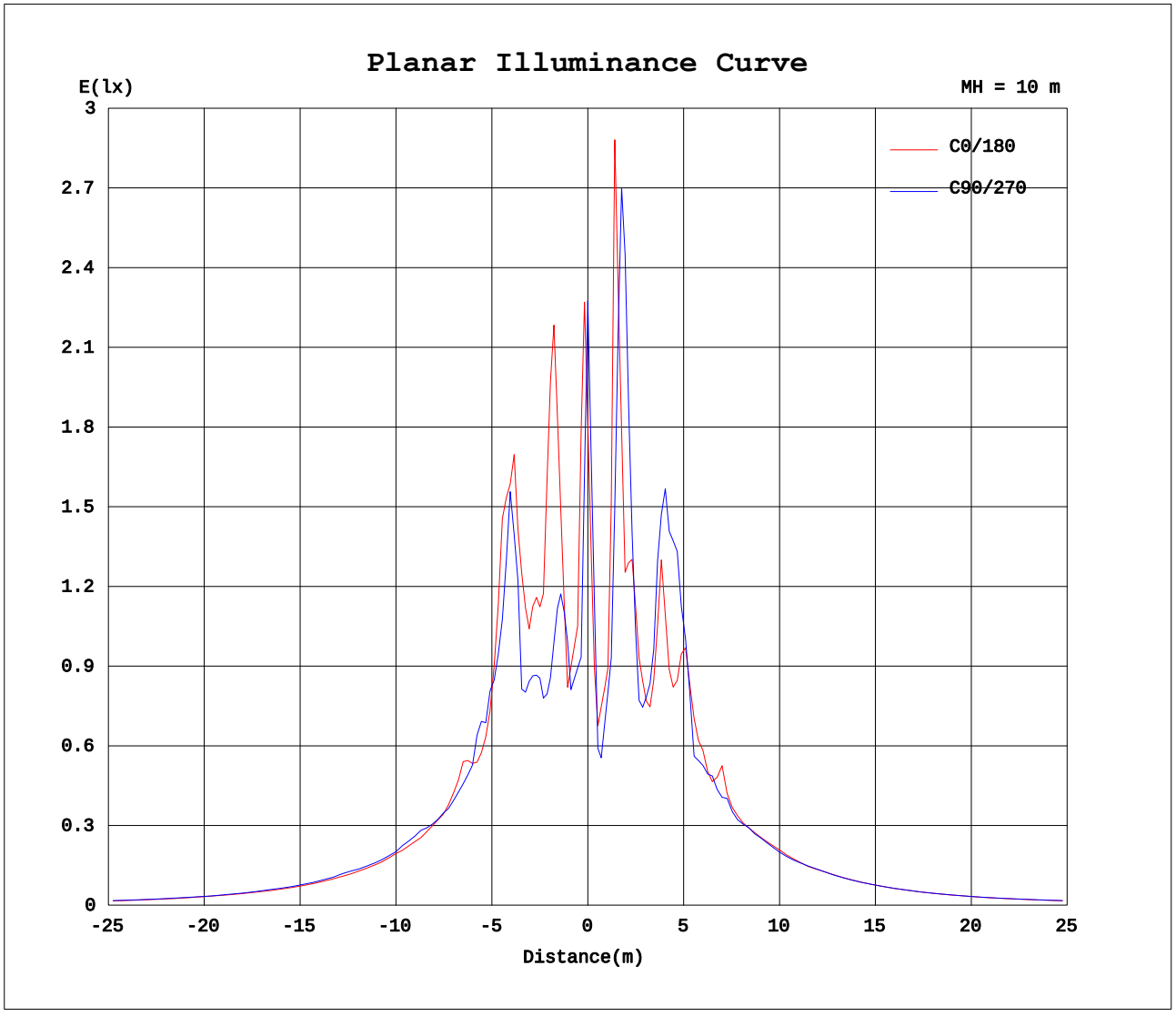
AvgL	cd/m2
L_0~180(65)av	4750
L_0~180(75)av	5604
L_0~180(85)av	12108
L_90~270(65)av	3895
L_90~270(75)av	4777
L_90~270(85)av	10518
L_45(65)av	4488
L_45(75)av	5390
L_45(85)av	11787

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.6DEG
Operators:David
Test Date:20 June 2018

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.366
Humidity:67.1%
Test Distance:2.457m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.6DEG
Operators:David
Test Date:20 June 2018

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.366
Humidity:67.1%
Test Distance:2.457m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

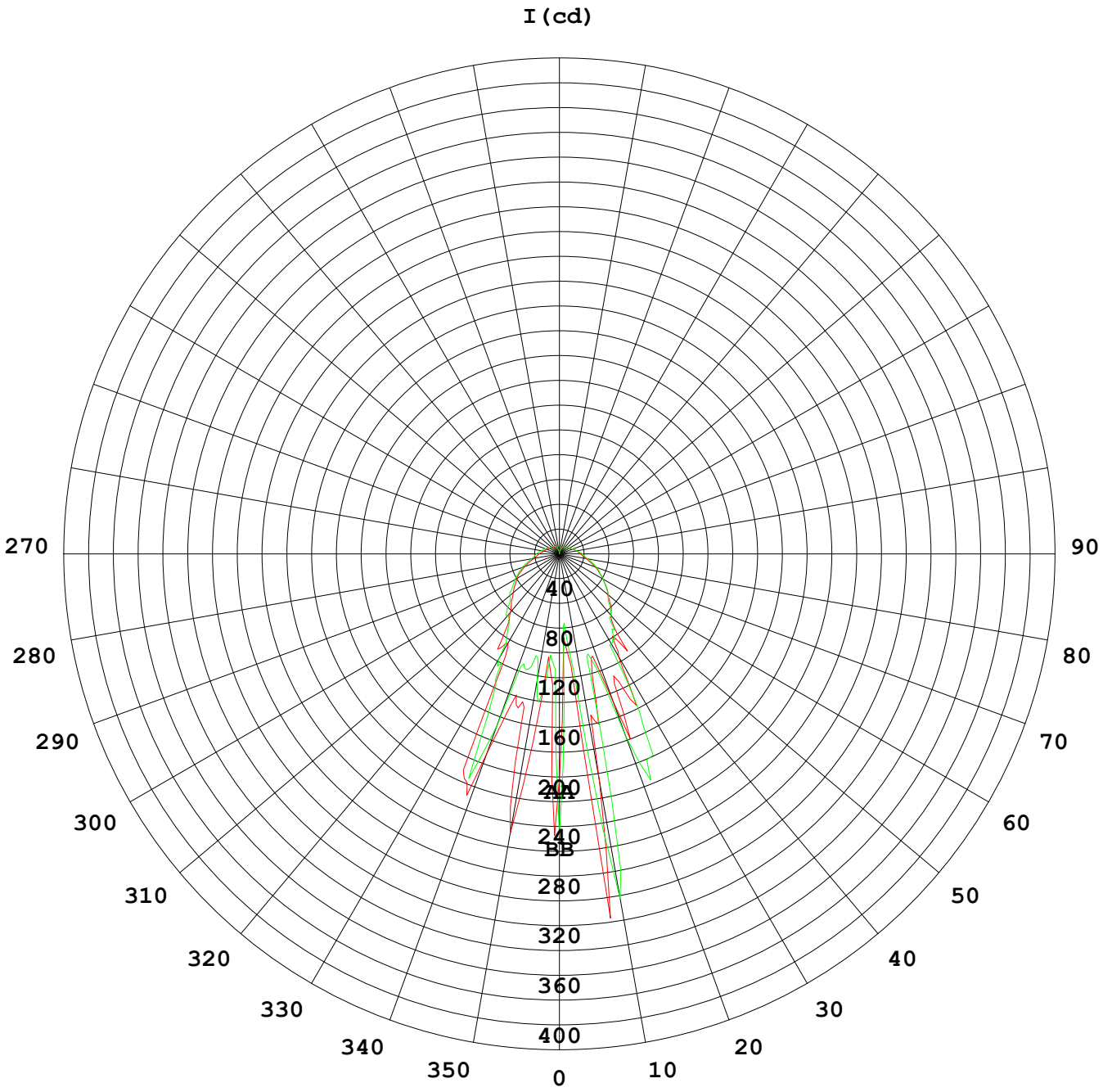
Test:U:120.00V I:0.0893A P:10.388W PF:0.9686 Freq:60.00Hz Lamp Flux:387.237x1 lm		
NAME:	TYPE:STL-06P-BL or PC-BD	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: Blackjack Lighting	SUR.:	Shielding Angle:

Table--1 UNIT: cd

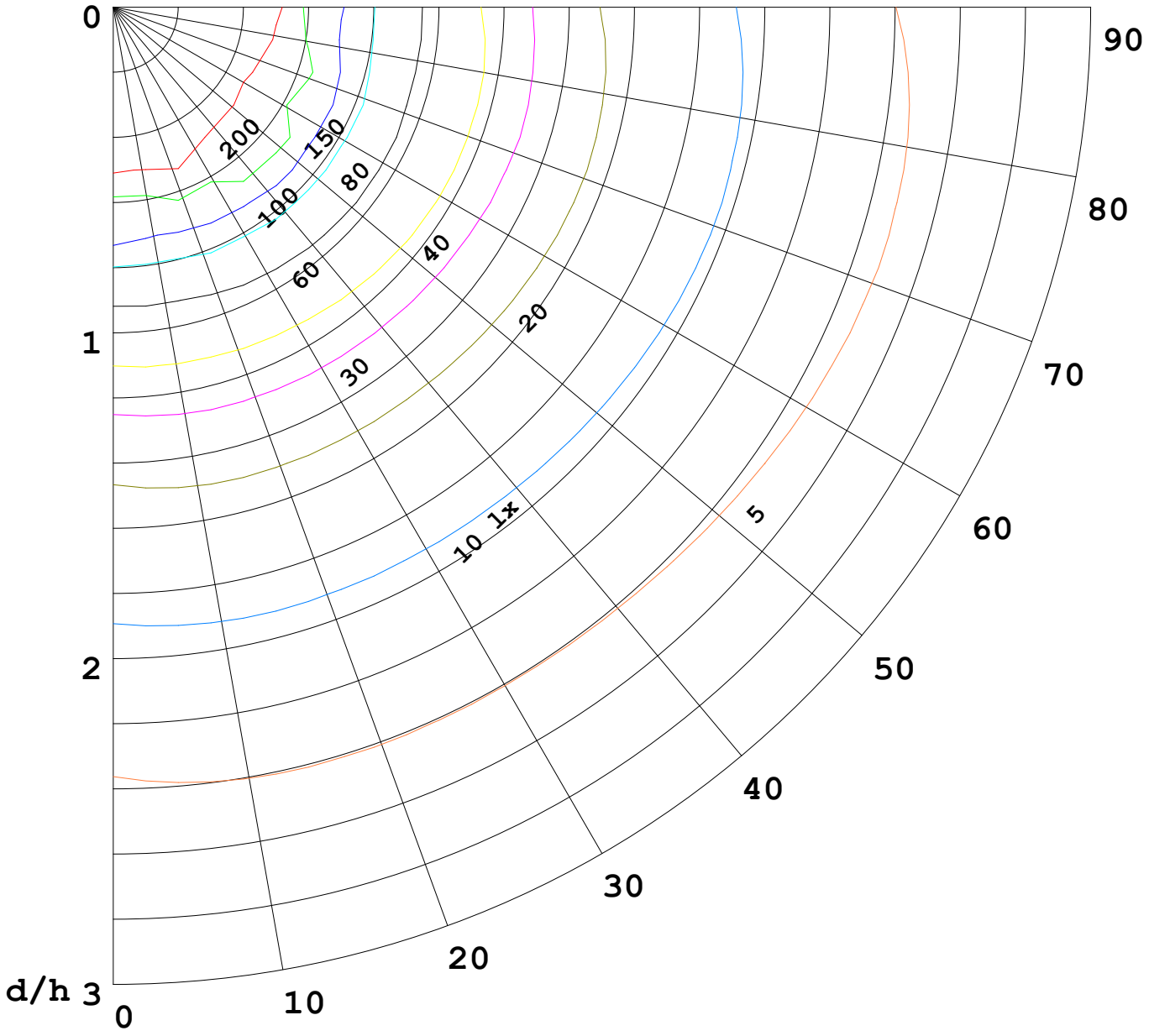
C(DEG) / γ (DEG)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5
0	207	207	207	207	207	207	207	207	207	207	207	207	207	207	207	207
5	104	97.8	94.8	78.4	74.7	77.9	67.8	70.5	94.4	81.2	87.0	71.0	62.5	61.2	64.8	85.0
10	261	193	135	102	94.2	128	143	192	214	276	216	245	257	254	160	210
15	147	129	125	100	87.5	93.8	94.8	88.6	118	115	110	119	77.9	104	86.9	119
20	195	257	146	124	134	156	111	134	145	120	110	126	142	119	128	109
25	174	150	110	97.0	116	92.6	89.2	89.7	130	136	113	127	163	164	138	132
30	94.9	115	107	89.2	89.7	76.5	77.6	75.7	109	114	84.2	82.8	76.3	80.6	79.3	79.1
35	87.9	82.5	91.6	66.4	65.2	63.6	64.7	73.5	109	127	74.2	77.3	67.3	65.8	80.9	79.7
40	70.6	67.9	74.6	59.5	59.1	54.7	59.0	61.7	74.2	72.8	68.5	56.1	59.2	58.3	63.0	64.4
45	63.0	60.7	66.5	54.4	52.0	48.5	52.1	54.7	67.4	62.2	62.4	48.5	51.5	52.7	56.9	59.5
50	55.7	54.4	60.1	49.7	47.1	44.0	47.1	51.0	58.6	54.9	56.0	43.2	46.9	47.1	49.5	53.2
55	49.9	49.9	53.6	45.2	42.0	40.4	42.4	46.0	52.8	48.1	50.9	39.5	41.6	42.0	44.9	47.3
60	45.3	44.6	48.0	40.6	37.5	35.5	37.5	40.2	46.4	43.2	45.4	35.5	37.0	36.7	39.7	42.5
65	39.8	39.6	42.3	35.9	33.1	31.8	33.1	35.4	40.5	38.0	40.2	31.4	32.8	32.6	36.1	38.0
70	33.8	33.9	36.6	31.5	28.9	28.2	28.7	30.8	35.1	31.8	34.7	28.3	29.0	28.6	31.6	32.9
75	28.5	28.9	31.1	27.0	24.4	23.8	24.1	25.9	29.5	27.1	29.7	25.1	25.1	24.7	26.7	27.9
80	24.0	24.6	27.0	22.8	20.8	20.4	21.0	22.1	25.0	22.9	25.0	21.3	21.1	21.0	22.3	23.5
85	20.8	21.6	23.3	19.4	18.4	18.0	18.3	19.2	21.4	19.4	21.5	18.2	18.3	17.7	19.1	19.9
90	19.1	19.5	21.2	17.3	17.0	16.8	16.4	17.3	19.6	17.7	19.4	16.5	16.9	15.4	16.9	18.2
95	16.5	17.2	18.4	15.1	15.3	15.0	14.7	15.2	17.7	15.5	16.6	14.6	14.9	13.6	14.9	16.0
100	14.9	15.4	16.7	13.3	13.7	13.4	13.1	13.8	16.2	13.9	14.7	13.1	13.1	12.3	13.4	14.7
105	13.6	13.6	14.9	11.9	12.2	12.2	11.8	12.6	14.6	12.5	13.3	11.8	11.7	11.4	12.3	13.3
110	12.4	12.4	13.5	10.9	11.0	11.0	10.7	11.5	13.1	11.4	11.9	10.6	10.4	10.3	11.1	12.0
115	11.21	11.1	12.1	10.00	10.1	10.3	9.79	10.1	11.4	10.42	10.79	9.43	9.37	9.67	10.2	10.6
120	10.35	9.90	11.19	9.14	8.71	9.37	9.32	9.33	10.32	9.33	9.81	8.43	8.31	8.87	9.40	9.66
125	9.56	9.13	10.50	8.57	8.24	8.65	8.90	8.81	9.67	8.75	9.18	7.85	7.64	8.13	8.60	8.79
130	9.02	8.44	9.84	8.07	7.91	8.25	8.14	8.24	9.17	8.19	8.59	7.22	7.24	7.59	7.98	8.23
135	8.64	8.13	9.44	7.86	7.55	7.91	7.99	7.88	8.94	7.81	8.11	6.78	6.88	7.18	7.58	7.95
140	8.45	7.77	9.32	7.73	7.28	7.80	7.96	7.66	8.71	7.86	7.75	6.32	6.63	6.82	7.31	7.80
145	8.35	7.70	9.17	7.55	6.91	7.73	7.84	7.53	8.67	8.04	7.65	6.18	6.40	6.52	7.14	7.56
150	8.38	7.79	9.11	7.33	6.48	7.52	7.69	7.38	8.30	7.99	7.67	6.17	6.22	6.24	7.07	7.40
155	8.22	7.83	9.05	6.77	5.82	7.16	7.23	6.81	7.56	7.45	7.84	5.88	5.77	5.97	6.68	7.16
160	7.06	6.70	8.15	5.37	4.89	5.28	5.83	5.31	6.27	6.19	6.83	5.09	4.60	5.25	5.25	6.50
165	4.86	4.49	5.50	3.93	3.24	3.39	4.17	3.86	4.75	4.60	5.01	3.98	3.40	4.22	3.71	4.69
170	2.93	2.91	3.19	2.36	2.20	2.26	2.62	1.49	2.30	2.09	3.09	2.46	2.39	2.69	2.22	2.26
175	0.96	0.90	0.82	0.64	0.36	0.49	0.48	0.40	0.48	0.50	0.38	0.75	0.80	0.90	0.74	0.87
180	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: 22.5DEG
Test Speed: HIGH
Temperature:25.6DEG
Operators:David
Test Date:20 June 2018

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.366
Humidity:67.1%
Test Distance:2.457m [K=1.0000]
Remarks:


I(cd)
90
80
70
60
50
40
30
20
10
0
350
340
330
320
310
300
290
280
270
40
80
120
160
200
240
280
320
360
400
AA
BB

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