Date of issue	2023-04-11
Version	1.0
Total pages	55

Test report of
IES LM-79-08
Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Applicant:

RAB LIGHTING,INC

Address:

408 W 14th St New York, NY 10014, USA

For Product:

LED Corn Lamp

Model No.:

HIDFA-205S-EX39-8CCT-BYP

Test laboratory: Shenzhen Belling Efficiency Testing Lab Co., Ltd, 1Floor, No.1 Building, Meibaohe Industrial Park, Dalang Street, Longhua District, Shenzhen, Guangdong Prov.518101 China.

Sam Chen

Jason zhou

Complied by: Sam Chen **Review by: Jason zhou**

Project Engineer **Technical Manager**

Note: The test data was only valid for the test sample(s). This test report is prepared for the customer shown above and for the device described herein. It may not be duplicated or used in part without prior written consent from Shenzhen Belling Efficiency Testing Lab Co., Ltd. This report must not be used by the customer to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Government.

1 General

1.1 Product Information

Manufacturer	RAB LIGHTING,INC
Manufacturer Address	408 W 14th St New York, NY 10014, USA
Brand Name	RAB
Luminaire Type	LED Corn Lamp
Model Number	HIDFA-205S-EX39-8CCT-BYP
Rated Inputs	AC 100-277V, 50/60Hz
Rated Power	205W
Color-Tunable Product	Yes, CCT setting: 3000K, 4000K, 5000K
Date of Receipt Samples	2023-02-27
Date of test	2023-02-28 to 2023-03-15
Burning Time Before Test	0hour(For New Products)

1.2 Standards or methods

- ANSI C78.377-2017:Specifications for the Chromaticity of Solid State Lighting Products
- ANSI C82.77-10:2014:Harmonic Emission Limits - Related Power Quality Requirements for Lighting Equipment - Solid State
- CIE Publication No.13.3-1995:Method of Measuring and Specifying Color Rendering of Light Sources
- IESNA LM-79-08 Approved Method: Electric & Photometric Measurement of Solid-state Lighting Products

1.3 Description

- Declaration: RAB LIGHTING,INC declare that their product with model HIDFA-205S-EX39-8CCT-BYP are the same to the product in the report BL230227010-9 and is authorized by original applicant to use their test data.
- Note: All the data in previous report BL230227010-9 is shared in report.

1.4 Equipment list

Device	Manufacture	Model No.	Serial No.	Calibration due date
Goniophotometeric System	SENSING	GMS-3000	N.A	2023-04-08
AC Power Source	ALL POWER	APW-105N	970780	2023-04-10
Total Luminous Flux Standard Lamp	SENSING	110V/100W	S13100188	2023-03-30
Total Luminous Flux Standard Lamp	OSRAM	12V/20W	LSD12201737	2023-03-30
Digital Power Meter	YOKOGAWA	WT310	C2QM02030V	2023-04-10
Thermostatic stabilized photometric sphere	SENSING	SPR-600M	N.A	2023-04-08
Digital Power Meter	YOKOGAWA	WT210	91L929742	2023-04-10
Spectral radiometer	SENSING	SPR-3000	S1101108	2023-04-08
Environment Measurer	XUYAO	HS-1	N/A	2023-03-30
Environment Measurer	XUYAO	HS-1	N/A	2023-03-30
Stop watch	KISLO	K610	N/A	2023-04-14
Digital Anemometer	TECMAN	TD8901	026141	2023-09-07

Statement of Traceability: Shenzhen Belling Efficiency Testing Lab Co., Ltd attests that all calibration has been performed using suitable standards traceable to national primary standards and International System of Unit (SI).

2 Test conducted and method

2.1 Ambient Condition

The ambient temperature in which measurements are being taken was maintained at 25°C ±1°C, the air flow around the sample(s) being tested did not affect the performance.

2.2 Power Supply Characteristics

The AC power supply had a sinusoidal voltage wave shape at the prescribed frequency (60 Hz) such that the RMS summation of the harmonic components does not exceed 3 percent of the fundamental during operation of the test item.

The voltage of AC power supply (RMS voltage) applied to the device under test was regulated to within±0.2 percent under load.

2.3 Seasoning and Stabilization

No seasoning was performed in accordance with IESNA LM-79-08. And before the measurement, the sample was stabilized until the light output and power variations were less than 0.5% in 30 minutes intervals (3 readings, 15 minutes apart).

2.4 Integrating Sphere System

The system includes AC power source, digital power meter, DC power supply, spectrophotometer, and integrating sphere. The integrating sphere system is calibrated by standard light source before measurement. The system and standard light source has been calibrated regularly and traceable to the National Primary Standards. 4π geometry was used during measurement. The product was operated in its intended orientation in application and was recorded in this report.

Integrating Sphere Uncertainty: The uncertainty of the light output (luminous flux) measurements is U=1.8% (K=2), at the 95% confidence level. The uncertainty of the correlated color temperature measurements is U=20K (K=2), at the 95% confidence level. The uncertainty of the CRI is U=1.8(K=2), at the 95% confidence level. The uncertainty of power meter AC current U=0.18% of rdg, AC Voltage U=0.16% of rdg, Power U=0.20% (K=2), at the 95% confidence level.

2.5 Goniophotometer System

The goniophotometer system is calibrated by standard light source before measurement. The standard light source has been calibrated regularly and traceable to the National Primary Standards.

Type C goniophotometer was used for measuring total luminous flux, luminous intensity distribution, and color spatial uniformity. The product was operated in its intended orientation in application and was recorded in this report. The method according to IESNA LM-79-08 following chapter.

Goniophotometer Uncertainty: The uncertainty of the luminous intensity is U=1.6% (K=2), at the 95% confidence level.

3 Test Result Summary

3.1 Integrating Sphere System (Total operating time for integrating sphere test: 1.0 hour)

3.1.1 Model Number: HIDFA-205S-EX39-8CCT-BYP, 3000K at 120V

Electrical data

Input Voltage(V)	Frequency (Hz)	Input Current (A)	Power (W)	Power Factor
119.99	60	1.680	200.20	0.993

Photometric data

Luminous Flux (lm)	Efficacy (lm/W)	CCT (K)
28613.55	142.9	3019

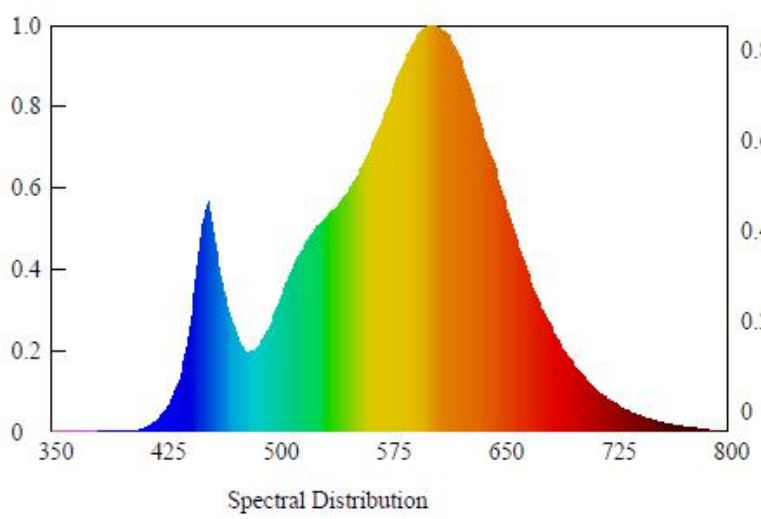
Chromaticity Coordinate

Duv	x	y	u'	v'
-0.00137	0.4336	0.3995	0.2504	0.5191

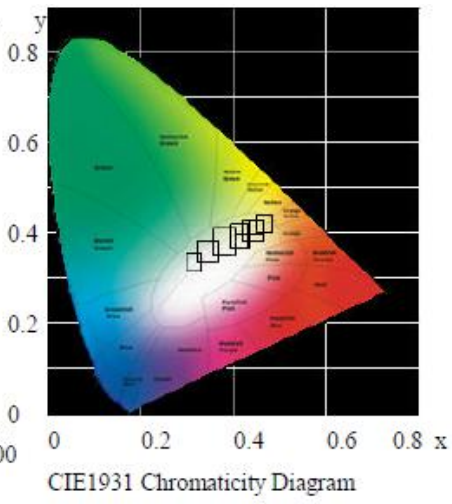
Color Rendering

CRI	R9	Rf	Rg	Rcs,h1(%)
83.4	11	85	96	-11

Spectral Distribution

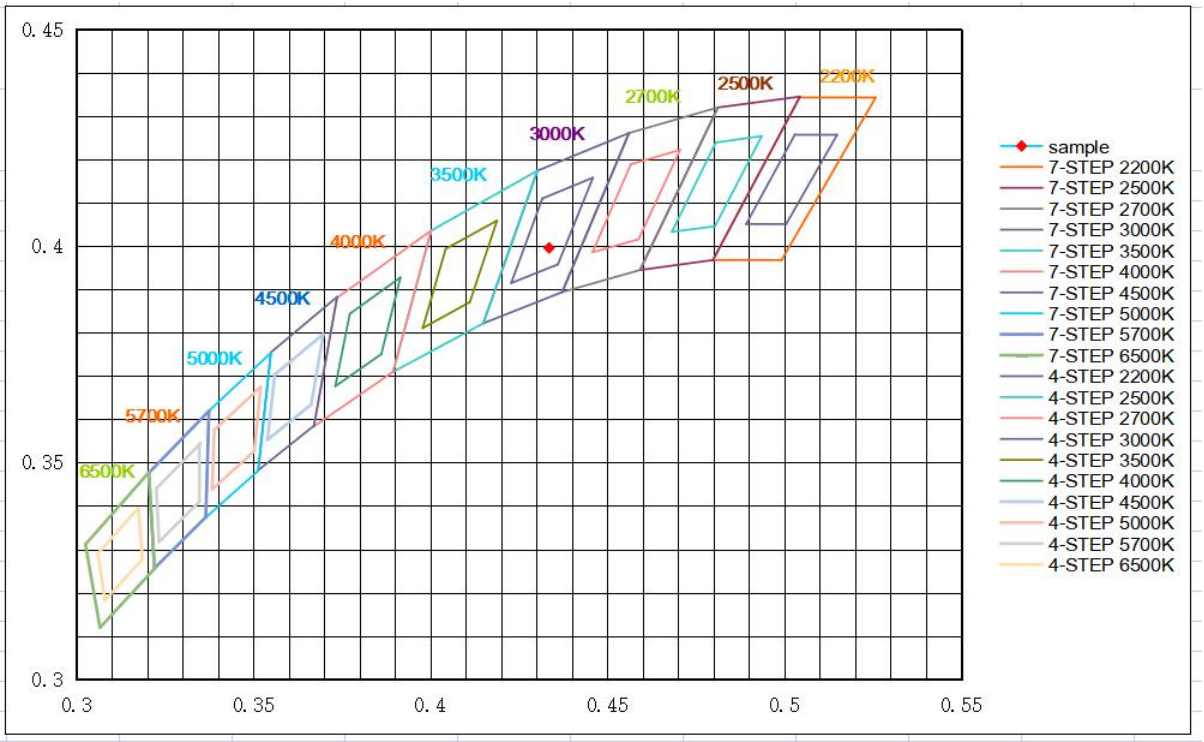


Spectral Distribution



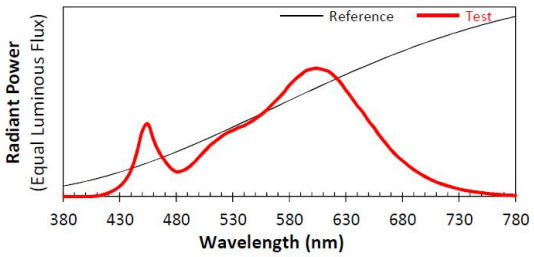
CIE1931 Chromaticity Diagram

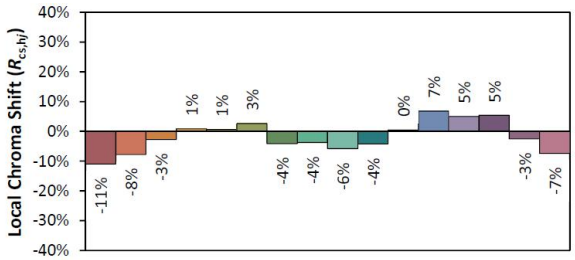
7/4 Step Quadrangle

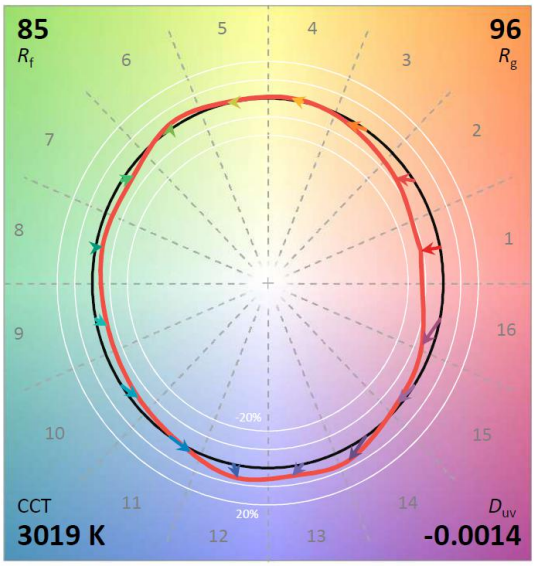


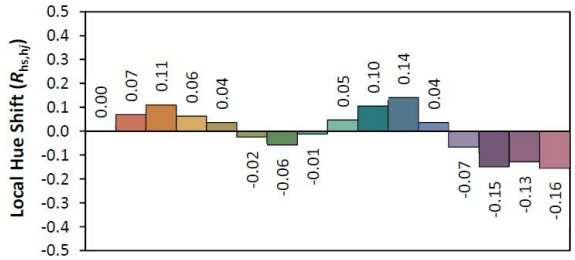
ANSI/IES TM-30-18 Color Rendition Report

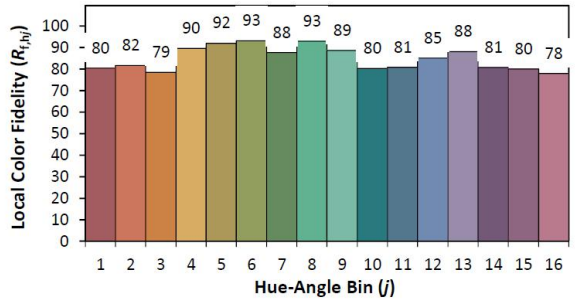
Source:	BL230227016-9	**Manufacturer:**	RAB LIGHTING,INC
Date:	2023-04-11	**Model:**	HIDFA-205S-EX39-8CCT-BYP, 3000K at 120V

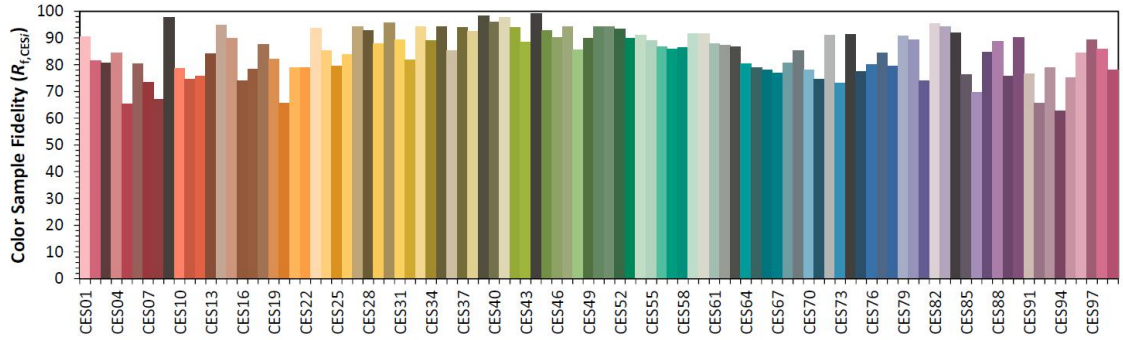












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x	0.4336
y	0.3995
u'	0.2504
v'	0.5191

CIE 13.3-1995 (CRI)

R_a	83
R_9	11

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

3.1.2 Model Number: HIDFA-205S-EX39-8CCT-BYP, 3000K at 277V

Electrical data

Input Voltage(V)	Frequency (Hz)	Input Current (A)	Power (W)	Power Factor
277.06	60	0.805	204.45	0.917

Photometric data

Luminous Flux (lm)	Efficacy (lm/W)	CCT (K)
29706.68	145.3	3017

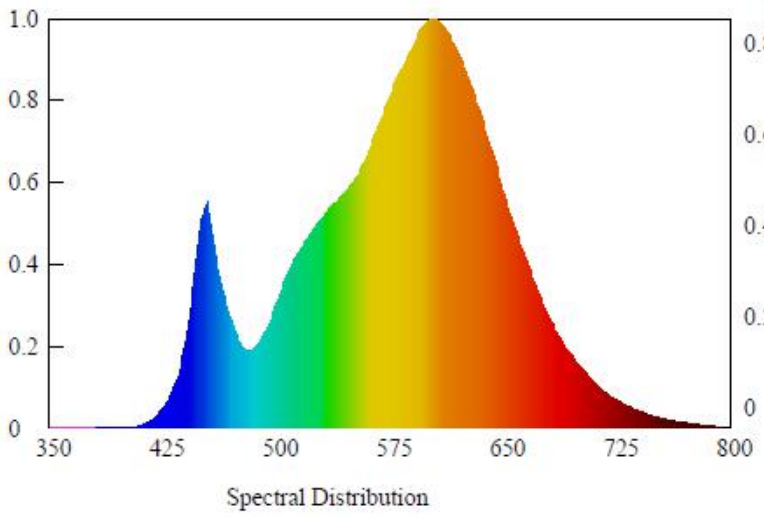
Chromaticity Coordinate

Duv	x	y	u'	v'
-0.00127	0.4339	0.3999	0.2504	0.5193

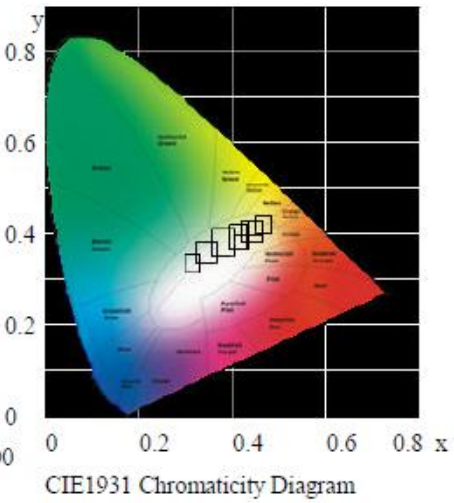
Color Rendering

CRI	R9	Rf	Rg	Rcs,h1(%)
83.4	11	85	96	-11

Spectral Distribution

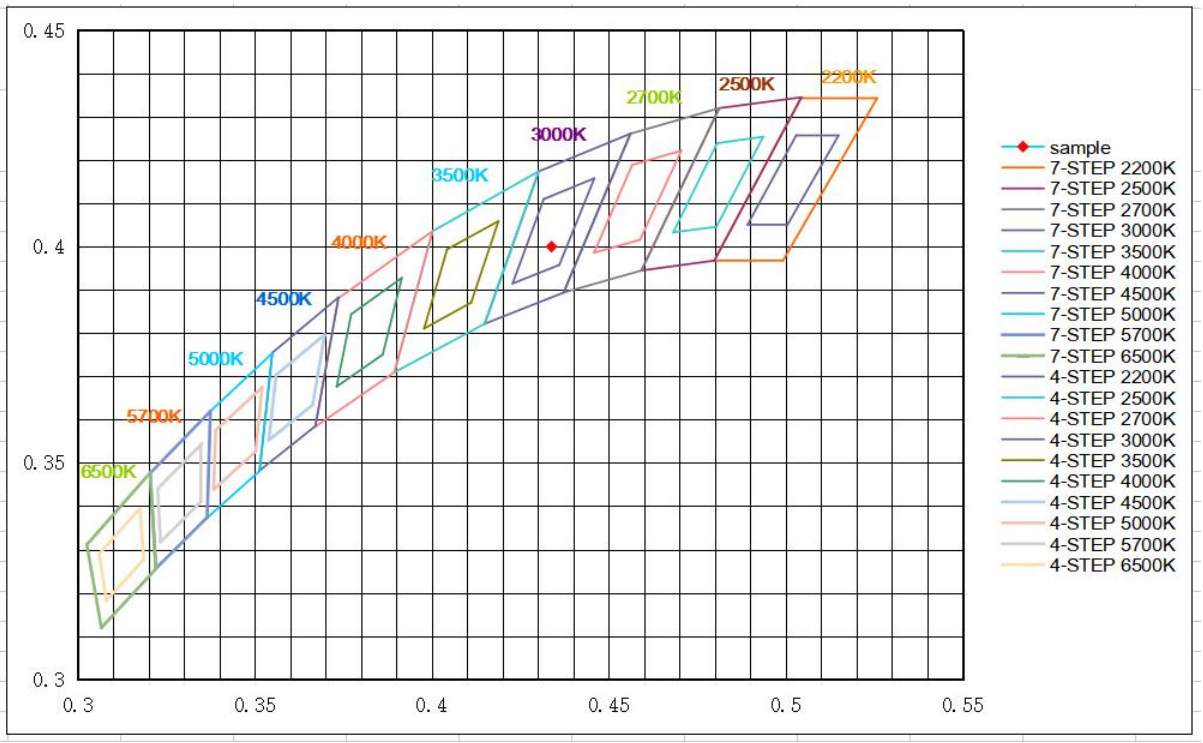


Spectral Distribution



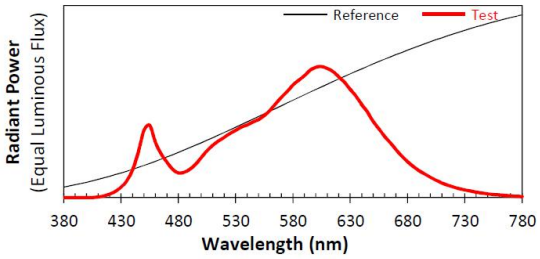
CIE1931 Chromaticity Diagram

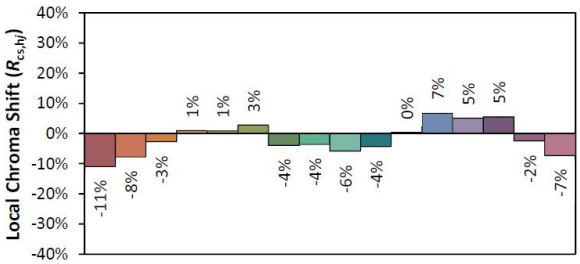
7/4 Step Quadrangle

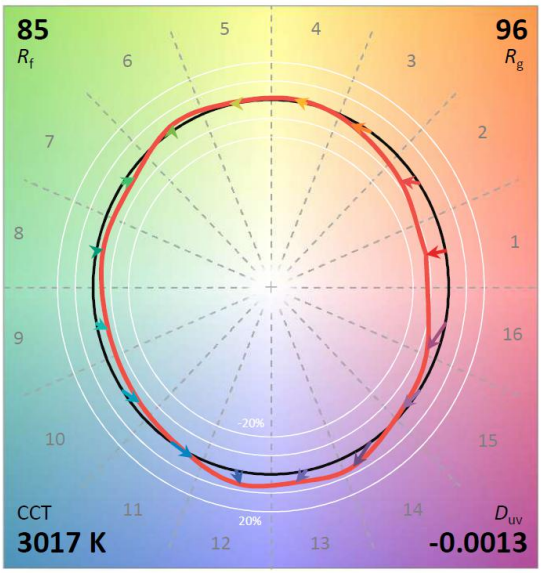


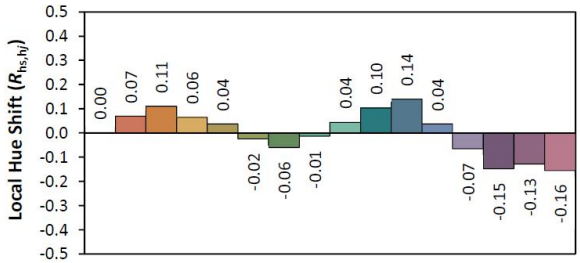
ANSI/IES TM-30-18 Color Rendition Report

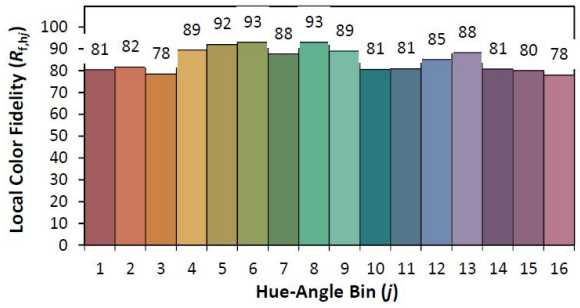
Source:	BL230227016-9	**Manufacturer:**	RAB LIGHTING,INC
Date:	2023-04-11	**Model:**	HIDFA-205S-EX39-8CCT-BYP, 3000K at 277V

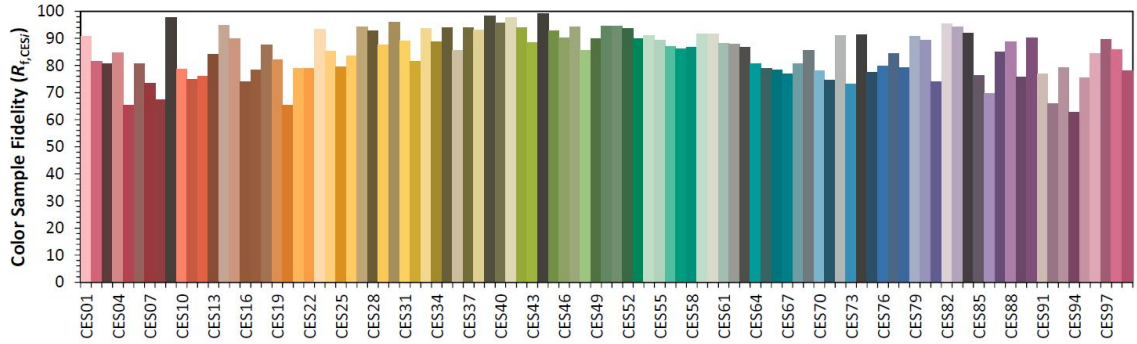












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x	0.4339
y	0.3999
u'	0.2504
v'	0.5193

CIE 13.3-1995 (CRI)

R_a	83
R_9	11

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

3.1.3 Model Number: HIDFA-205S-EX39-8CCT-BYP, 4000K at 120V

Electrical data

Input Voltage(V)	Frequency (Hz)	Input Current (A)	Power (W)	Power Factor
120.01	60	1.647	196.22	0.993

Photometric data

Luminous Flux (lm)	Efficacy (lm/W)	CCT (K)
31531.51	160.7	4128

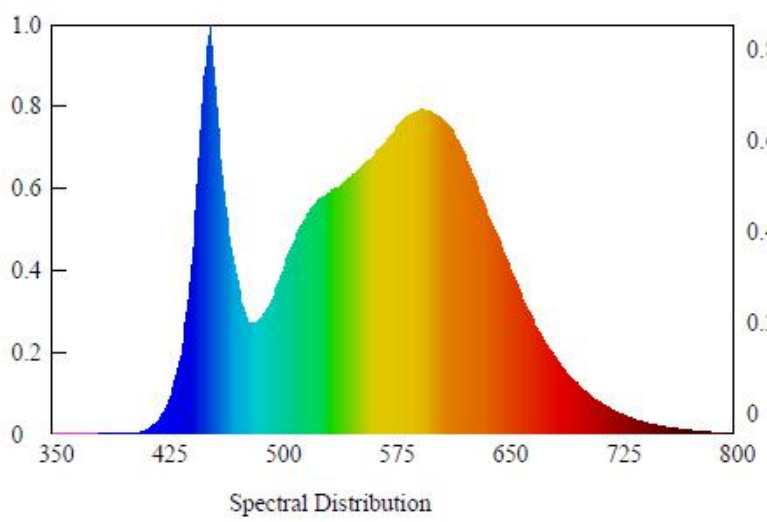
Chromaticity Coordinate

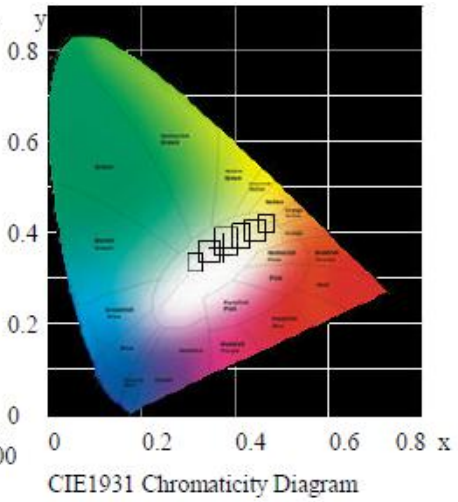
Duv	x	y	u'	v'
-0.00207	0.3737	0.3681	0.2241	0.4967

Color Rendering

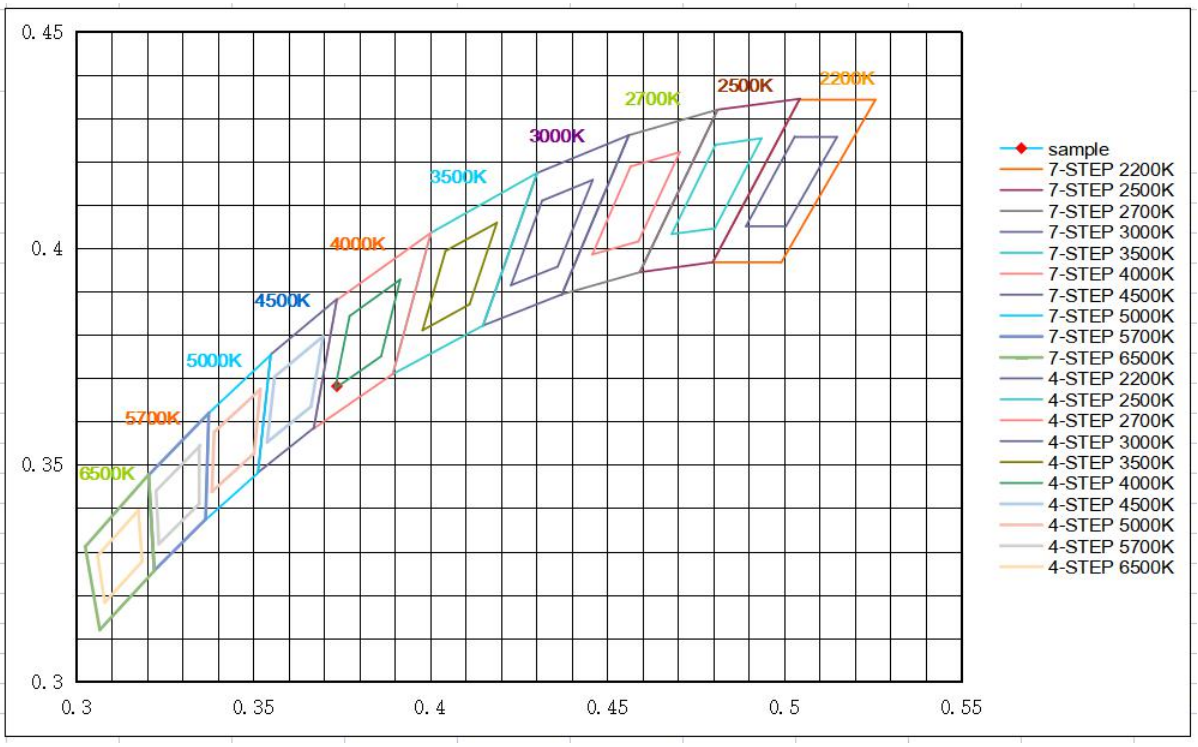
CRI	R9	Rf	Rg	Rcs,h1(%)
85.9	23	85	96	-10

Spectral Distribution



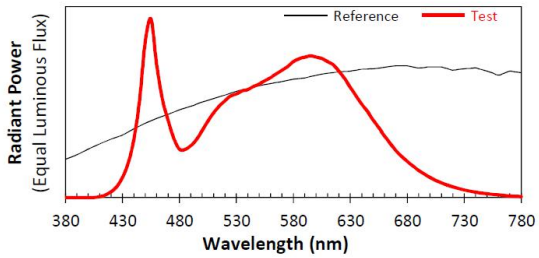


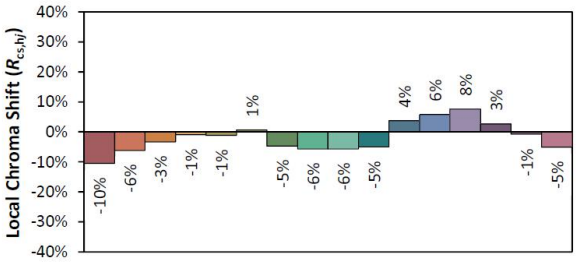
7/4 Step Quadrangle

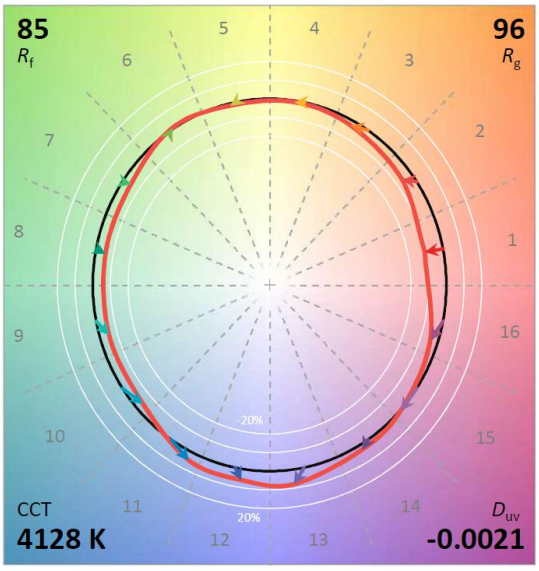


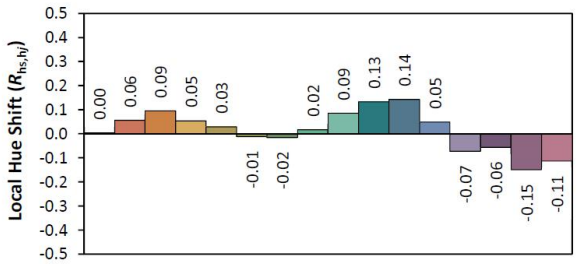
ANSI/IES TM-30-18 Color Rendition Report

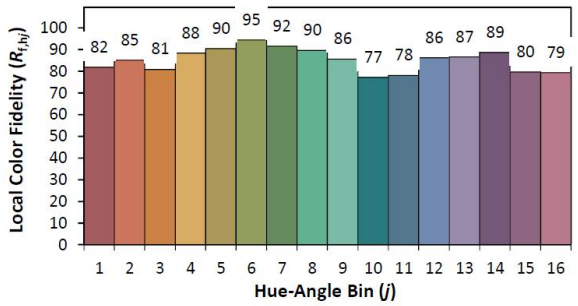
Source:	BL230227016-9	**Manufacturer:**	RAB LIGHTING,INC
Date:	2023-04-11	**Model:**	HIDFA-205S-EX39-8CCT-BYP, 4000K at 120V

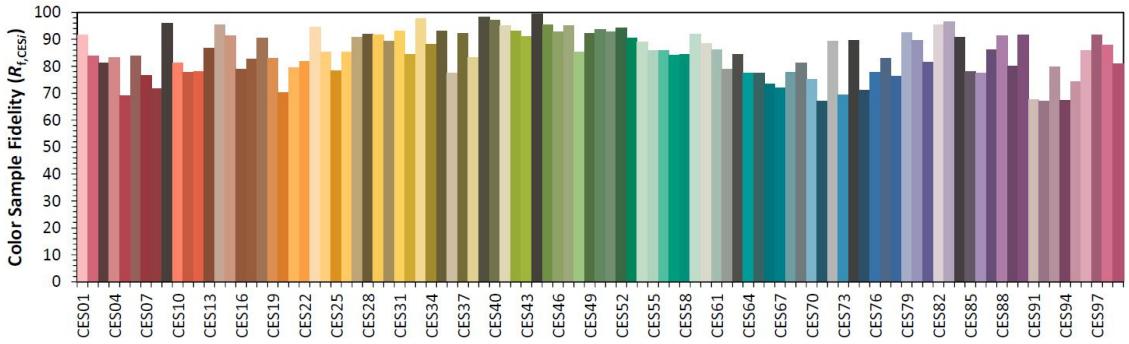












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x	0.3737
y	0.3681
u'	0.2241
v'	0.4967

CIE 13.3-1995 (CRI)

R_a	86
R_9	23

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

3.1.4 Model Number: HIDFA-205S-EX39-8CCT-BYP, 4000K at 277V

Electrical data

Input Voltage(V)	Frequency (Hz)	Input Current (A)	Power (W)	Power Factor
277.05	60	0.796	201.77	0.915

Photometric data

Luminous Flux (lm)	Efficacy (lm/W)	CCT (K)
33101.13	164.1	4126

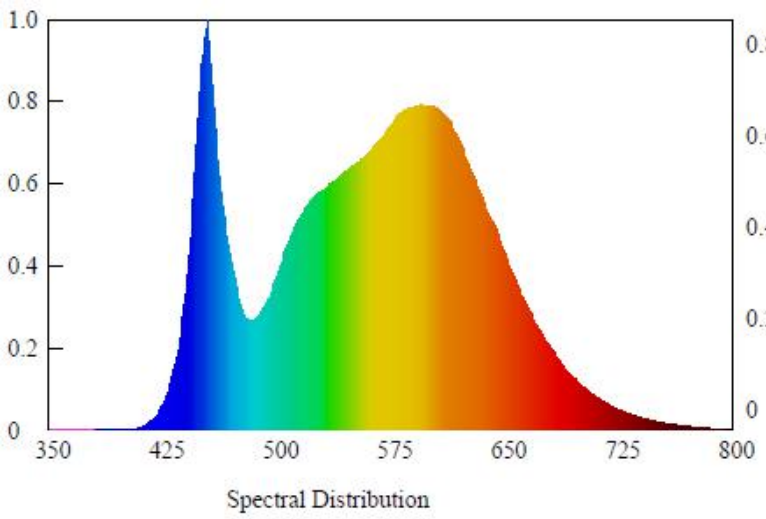
Chromaticity Coordinate

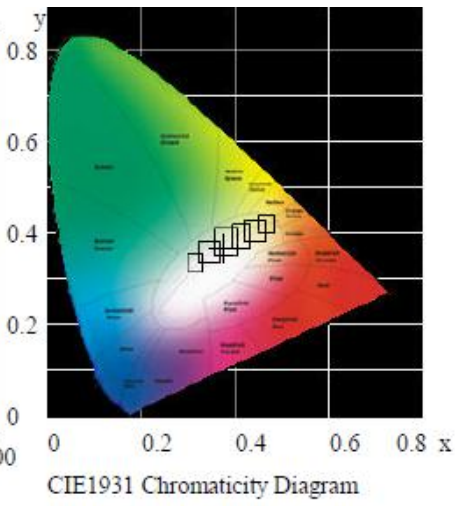
Duv	x	y	u'	v'
-0.00199	0.3738	0.3684	0.2241	0.4969

Color Rendering

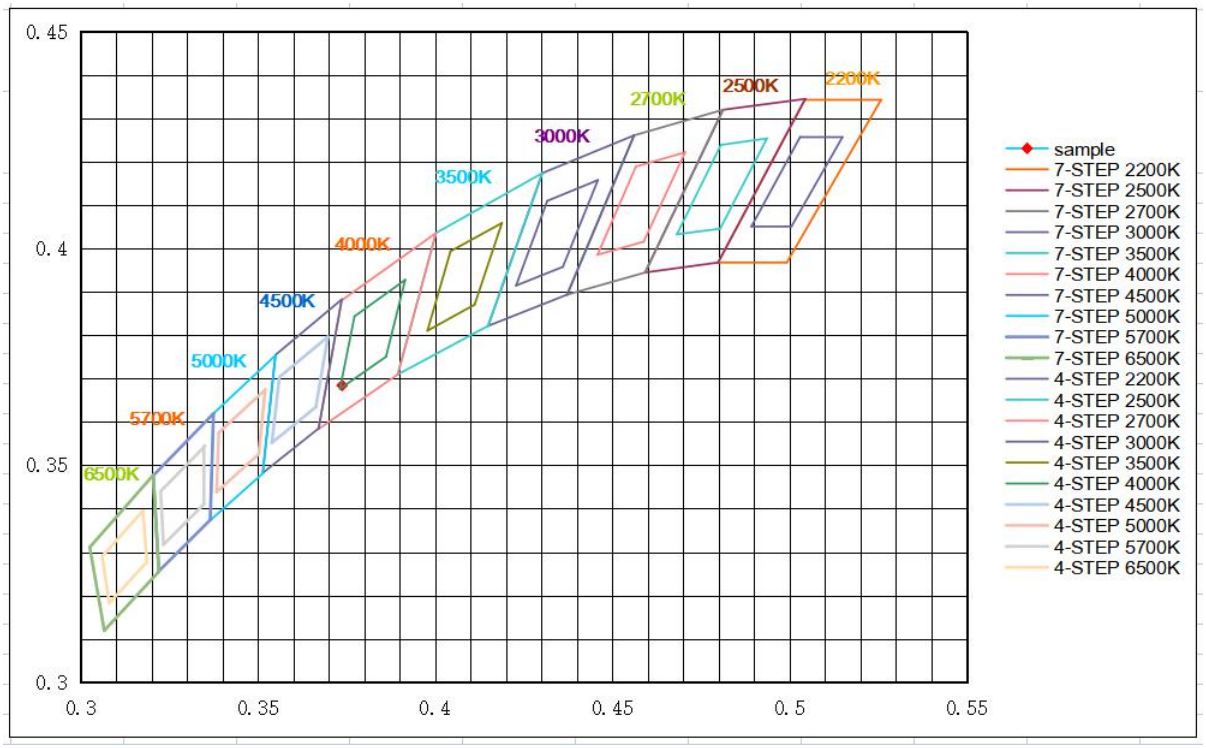
CRI	R9	Rf	Rg	Rcs,h1(%)
85.9	23	85	96	-10

Spectral Distribution



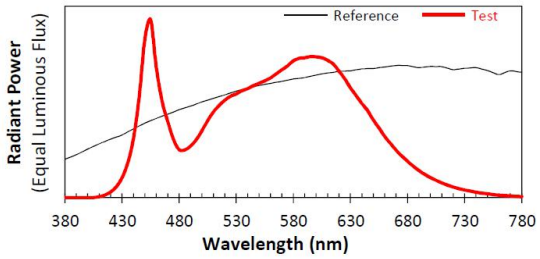


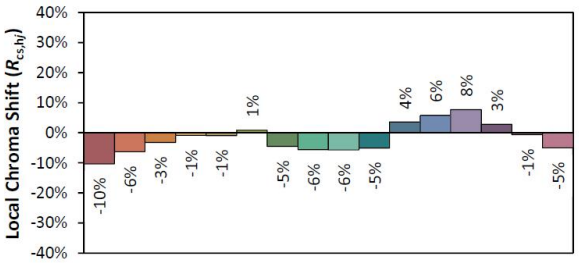
7/4 Step Quadrangle

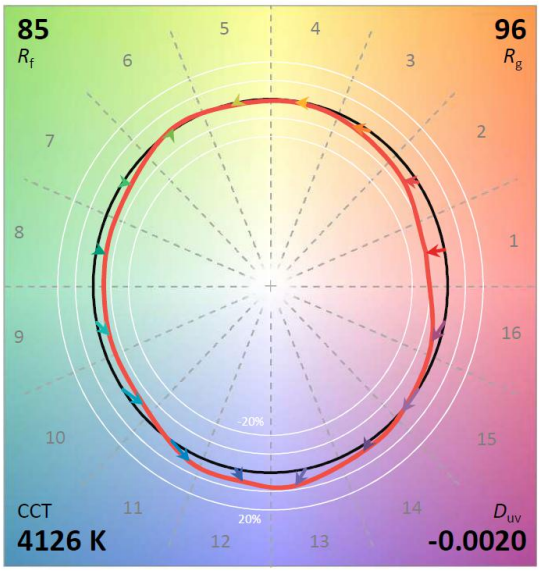


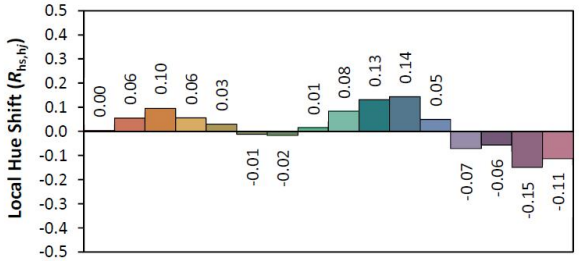
ANSI/IES TM-30-18 Color Rendition Report

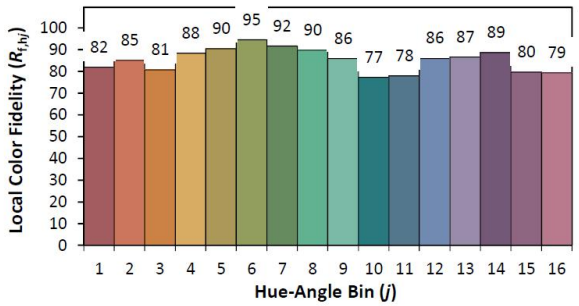
Source:	BL230227016-9	**Manufacturer:**	RAB LIGHTING,INC
Date:	2023-04-11	**Model:**	HIDFA-205S-EX39-8CCT-BYP, 4000K at 277V

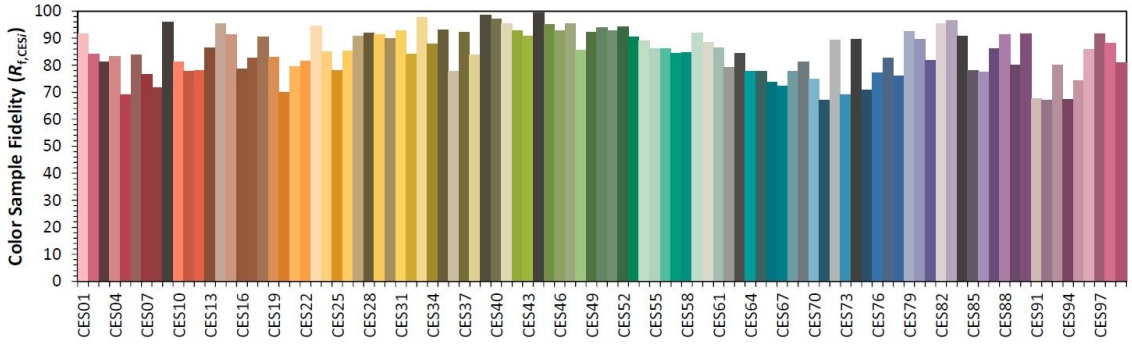












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x	0.3738
y	0.3684
u'	0.2241
v'	0.4969

CIE 13.3-1995 (CRI)

R_a	86
R_9	23

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

3.1.5 Model Number: HIDFA-205S-EX39-8CCT-BYP, 5000K at 120V

Electrical data

Input Voltage(V)	Frequency (Hz)	Input Current (A)	Power (W)	Power Factor
120.00	60	1.690	201.44	0.993

Photometric data

Luminous Flux (lm)	Efficacy (lm/W)	CCT (K)
31230.56	155.0	5024

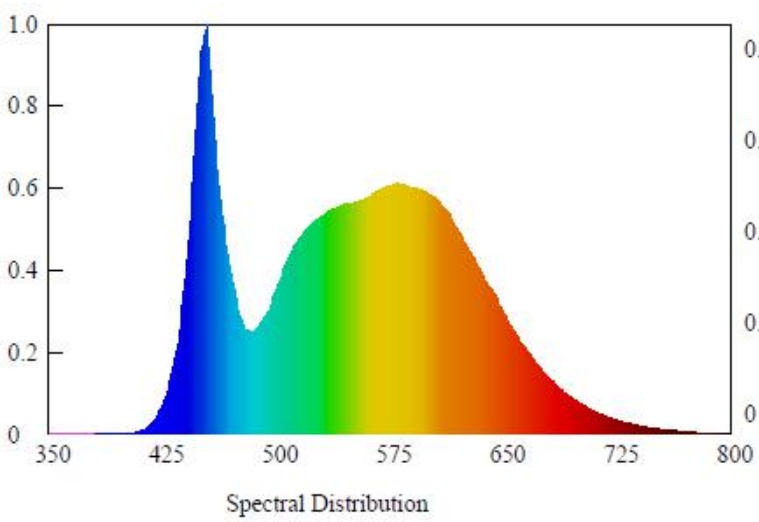
Chromaticity Coordinate

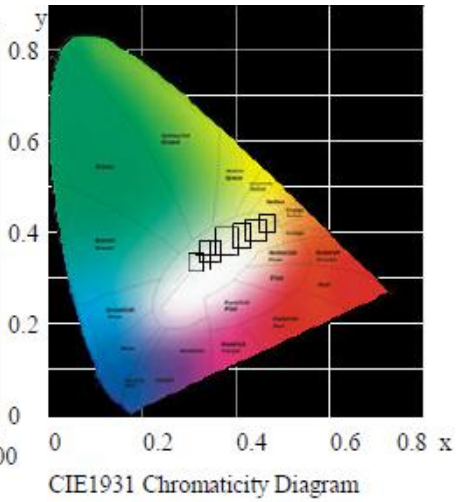
Duv	x	y	u'	v'
+0.00091	0.3446	0.3530	0.2105	0.4853

Color Rendering

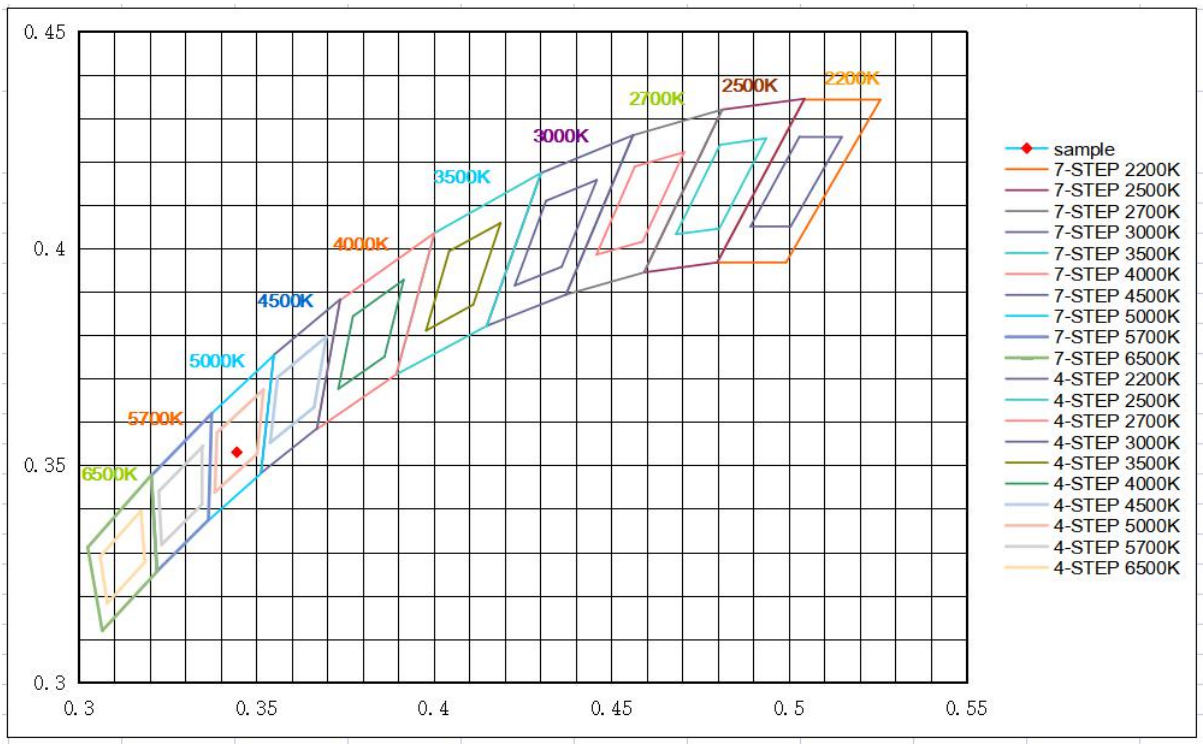
CRI	R9	Rf	Rg	Rcs,h1(%)
84.5	16	84	96	-11

Spectral Distribution



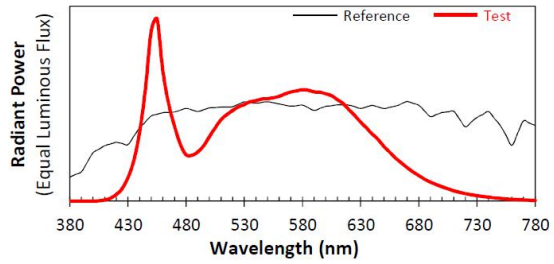


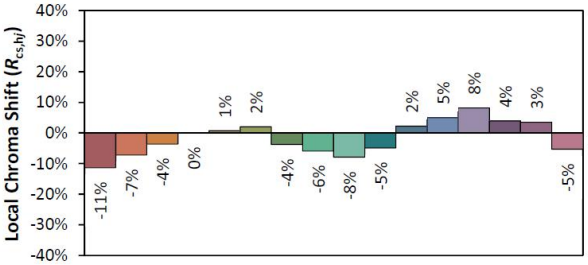
7/4 Step Quadrangle

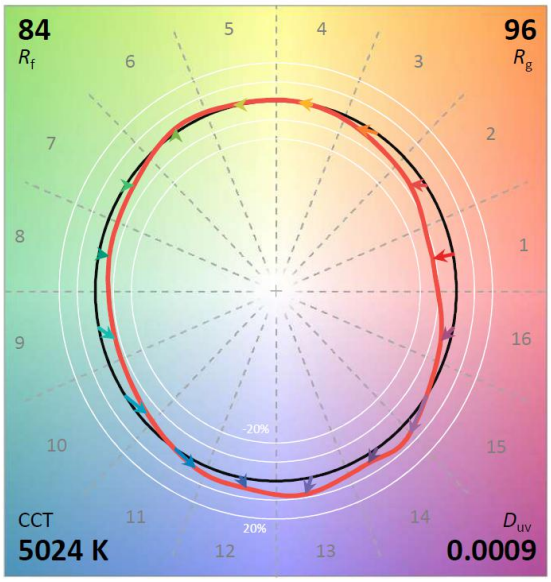


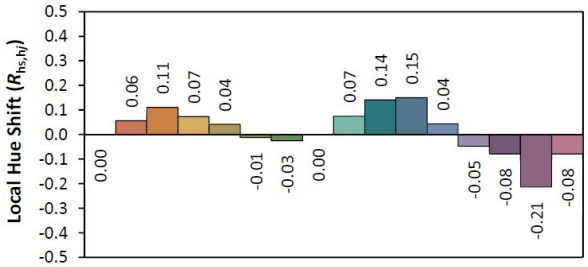
ANSI/IES TM-30-18 Color Rendition Report

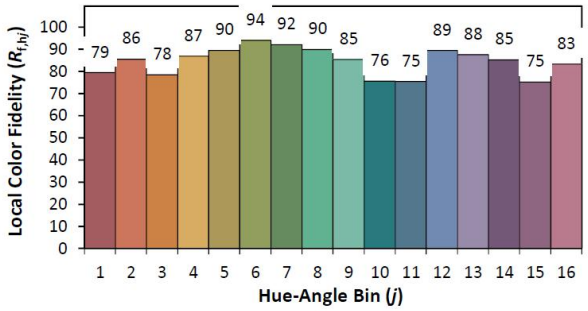
Source:	BL230227016-9	**Manufacturer:**	RAB LIGHTING,INC
Date:	2023-04-11	**Model:**	HIDFA-205S-EX39-8CCT-BYP, 5000K at 120V

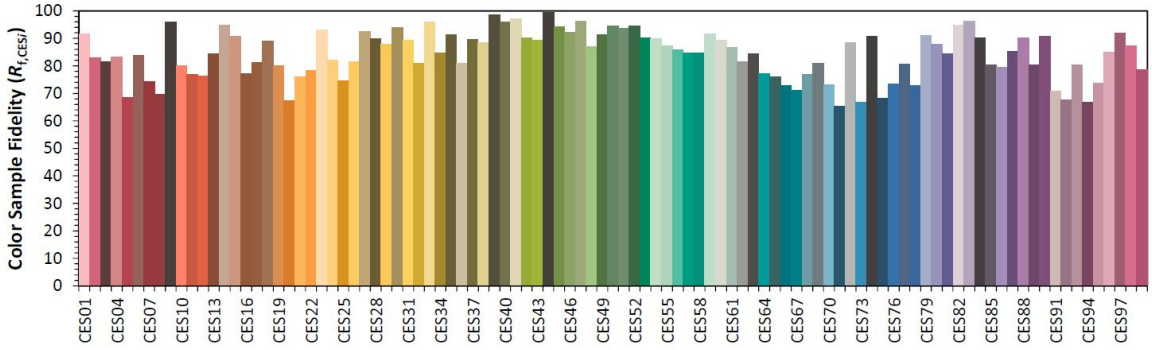












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x	0.3446
y	0.3530
u'	0.2105
v'	0.4853

CIE 13.3-1995 (CRI)

R_a	84
R_9	16

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

3.1.6 Model Number: HIDFA-205S-EX39-8CCT-BYP, 5000K at 277V

Electrical data

Input Voltage(V)	Frequency (Hz)	Input Current (A)	Power (W)	Power Factor
277.05	60	0.806	204.62	0.916

Photometric data

Luminous Flux (lm)	Efficacy (lm/W)	CCT (K)
32447.61	158.6	5024

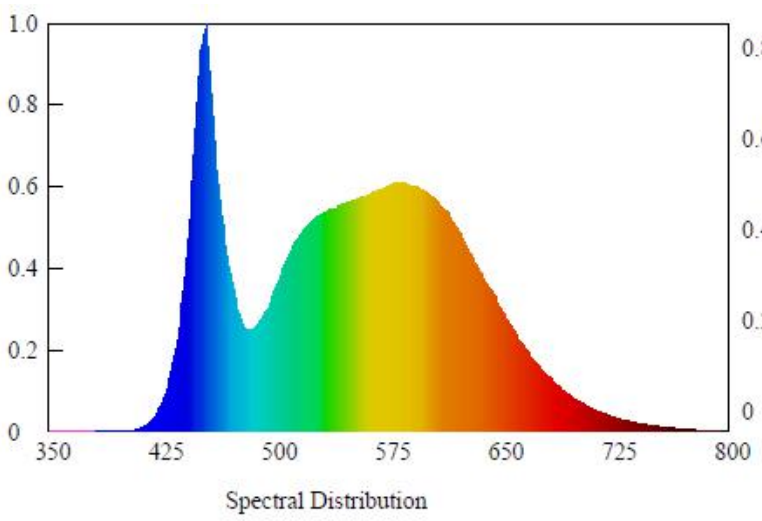
Chromaticity Coordinate

Duv	x	y	u'	v'
+0.00093	0.3446	0.3531	0.2105	0.4853

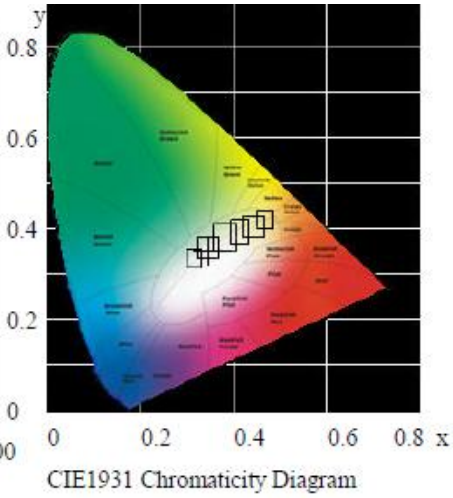
Color Rendering

CRI	R9	Rf	Rg	Rcs,h1(%)
84.4	16	84	96	-11

Spectral Distribution

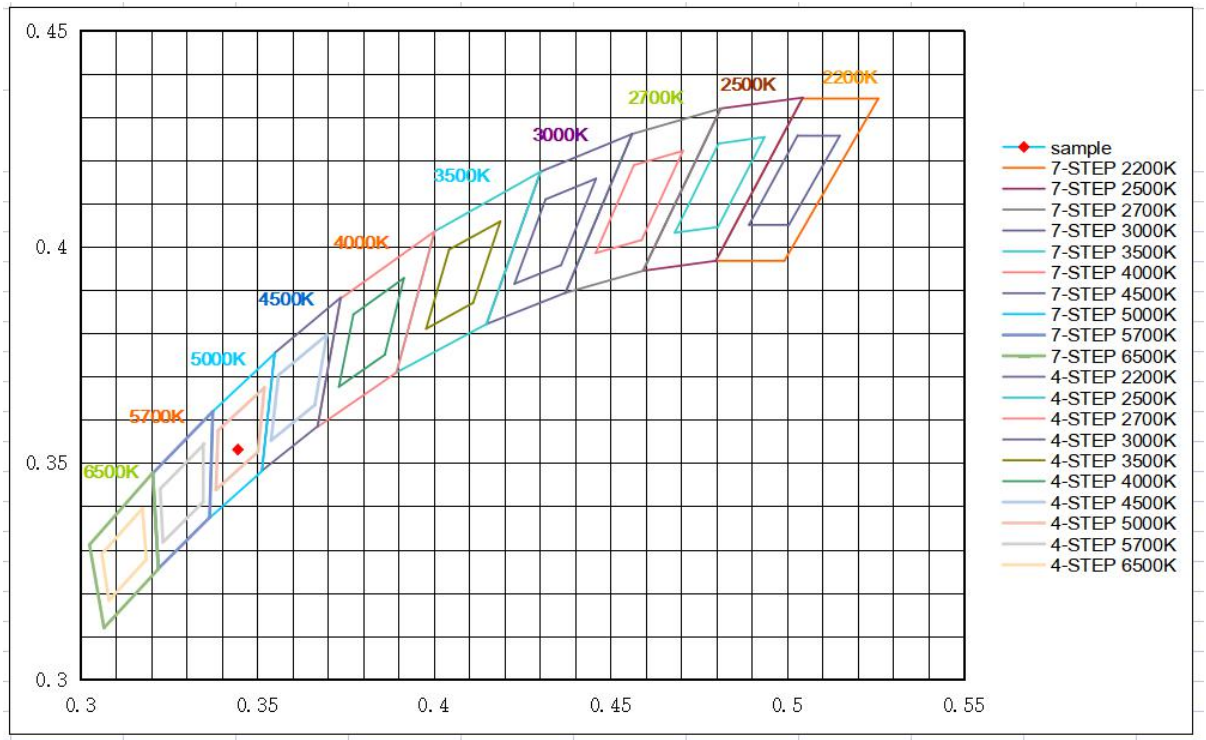


Spectral Distribution



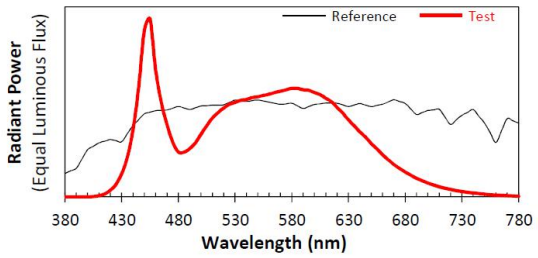
CIE1931 Chromaticity Diagram

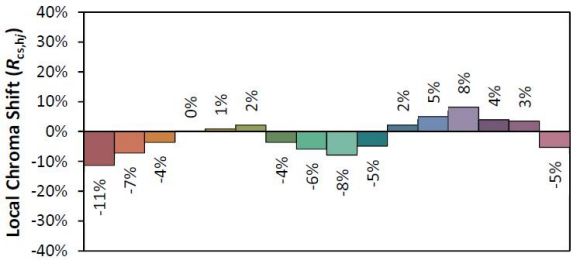
7/4 Step Quadrangle

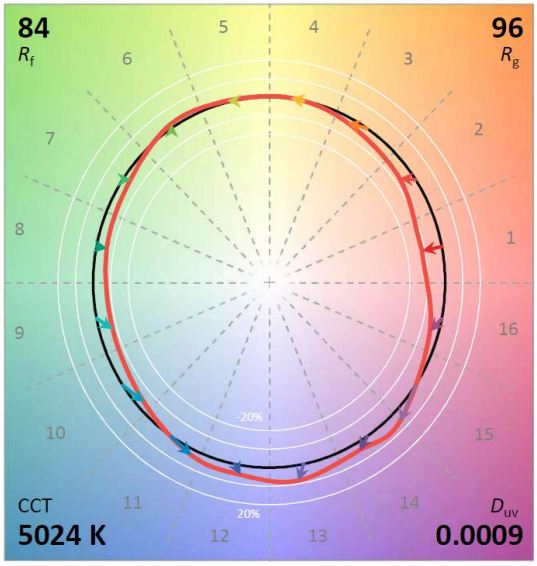


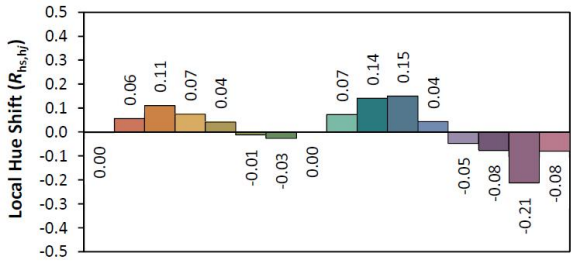
ANSI/IES TM-30-18 Color Rendition Report

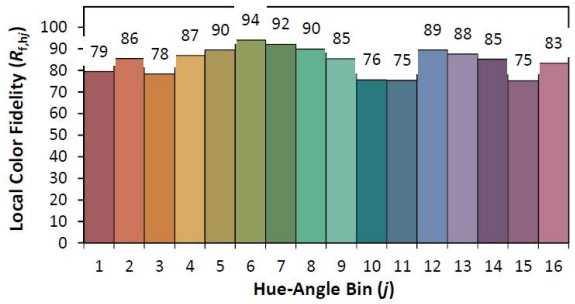
Source:	BL230227016-9	**Manufacturer:**	RAB LIGHTING,INC
Date:	2023-04-11	**Model:**	HIDFA-205S-EX39-8CCT-BYP, 5000K at 277V

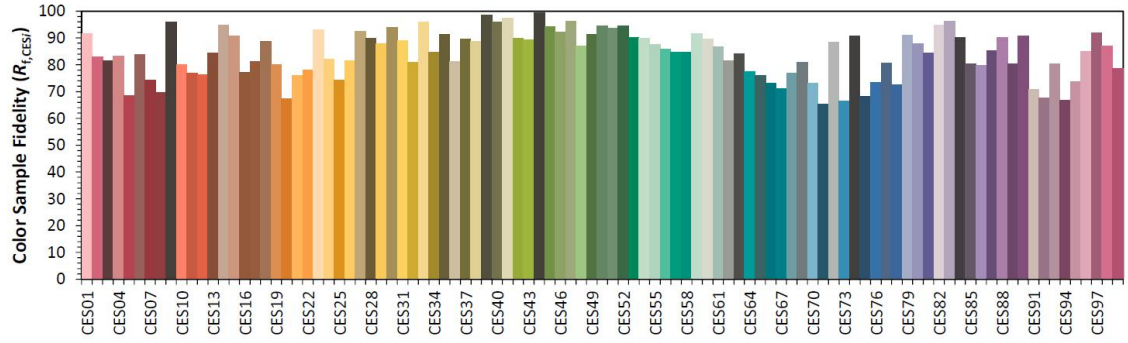












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x	0.3446
y	0.3531
u'	0.2105
v'	0.4853

CIE 13.3-1995 (CRI)

R_a	84
R_9	16

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

3.2 Goniophotometer System (Total operating time for luminous intensity distribution: 1.0 hour)

3.2.1 Model Number: HIDFA-205S-EX39-8CCT-BYP, 3000K at 120V

Electrical data

Input Voltage(V)	Frequency (Hz)	Input Current (A)	Power (W)	Power Factor
120.07	60	1.6810	200.50	0.9932

Photometric data

Luminous Flux (lm)	Efficacy (lm/W)	Zonal Lumen in 0-60°(%lm)	Zonal Lumen in 0-90°(%lm)
28605.50	142.67	20.63	51.21

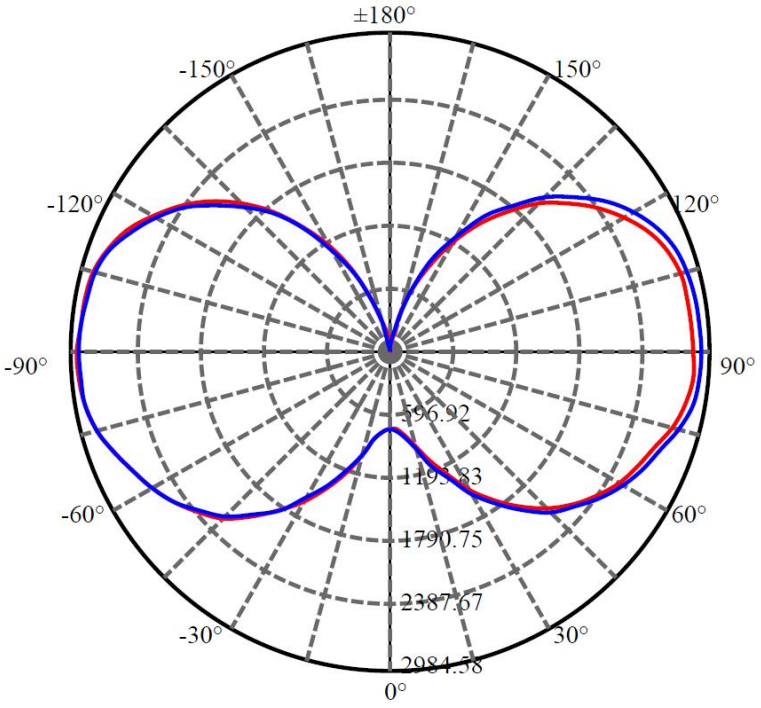
Zonal Flux Diagram

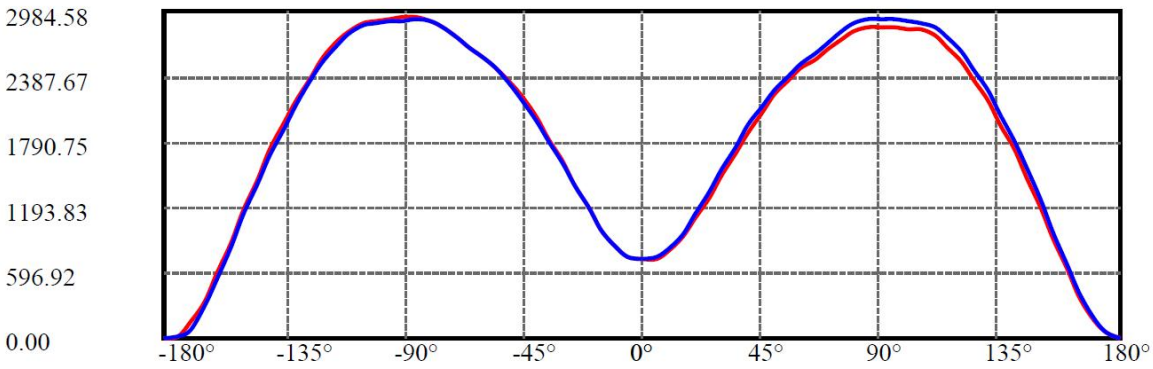
Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	714.708	0.000	0	0.00%	0.00%
5.0	737.148	17.357	17.357	0.00%	0.06%
10.0	811.561	55.402	72.759	0.00%	0.25%
15.0	956.525	104.882	177.64	0.00%	0.62%
20.0	1143.299	173.055	350.695	0.00%	1.23%
25.0	1346.441	261.128	611.823	0.00%	2.14%
30.0	1551.806	366.776	978.599	0.00%	3.42%
35.0	1758.295	487.436	1466.034	0.00%	5.13%
40.0	1948.774	618.497	2084.531	0.00%	7.29%
45.0	2132.453	755.672	2840.203	0.00%	9.93%
50.0	2291.838	893.993	3734.196	0.00%	13.05%
55.0	2421.017	1024.732	4758.927	0.00%	16.64%
60.0	2525.214	1143.307	5902.235	0.00%	20.63%
65.0	2619.832	1250.770	7153.005	0.00%	25.01%
70.0	2721.237	1352.393	8505.398	0.00%	29.73%
75.0	2816.847	1447.566	9952.964	0.00%	34.79%
80.0	2884.460	1525.511	11478.475	0.00%	40.13%
85.0	2914.561	1575.733	13054.208	0.00%	45.64%
90.0	2911.597	1595.248	14649.456	0.00%	51.21%
95.0	2907.059	1593.194	16242.65	0.00%	56.78%
100.0	2892.981	1576.010	17818.66	0.00%	62.29%
105.0	2869.336	1541.836	19360.495	0.00%	67.68%
110.0	2798.932	1481.594	20842.089	0.00%	72.86%
115.0	2694.086	1390.868	22232.957	0.00%	77.72%
120.0	2554.442	1275.927	23508.884	0.00%	82.18%
125.0	2373.450	1139.068	24647.953	0.00%	86.17%
130.0	2173.298	988.614	25636.567	0.00%	89.62%
135.0	1957.613	834.711	26471.278	0.00%	92.54%
140.0	1722.001	681.310	27152.588	0.00%	94.92%
145.0	1458.736	530.682	27683.27	0.00%	96.78%
150.0	1180.109	388.588	28071.859	0.00%	98.13%
155.0	890.778	262.073	28333.931	0.00%	99.05%
160.0	604.953	156.875	28490.806	0.00%	99.60%
165.0	347.047	78.458	28569.264	0.00%	99.87%
170.0	144.791	29.175	28598.44	0.00%	99.98%
175.0	37.485	6.521	28604.96	0.00%	100.00%
180.0	7.646	0.540	28605.5	0.00%	100.00%

Luminous Intensity Distribution Diagram

Light Distribution Curve [Unit:cd]





C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:166.1 Right:166.9

:C90/270Left:165.0 Right:167.7

Beam Angle(50%Imax):C0/180Left:144.7 Right:145.1

:C90/270Left:144.2 Right:146.7

Luminous Intensity Distribution Data

C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	714.71	725.93	789.02	929.16	1095.35	1285.03	1488.48	1689.17	1875.47
22.5	714.71	729.10	794.31	933.40	1103.39	1295.62	1492.71	1700.18	1889.02
45.0	714.71	727.62	794.73	942.08	1121.60	1316.58	1511.77	1706.96	1894.31
67.5	714.71	728.89	797.48	946.73	1134.30	1316.15	1512.19	1711.40	1896.64
90.0	714.71	749.64	813.15	936.57	1125.62	1330.55	1535.48	1743.79	1938.35
112.5	714.71	738.63	815.48	952.03	1142.98	1353.41	1567.45	1783.17	1979.21
135.0	714.71	744.56	820.35	956.68	1155.05	1373.31	1575.91	1781.69	1965.87
157.5	714.71	743.08	827.33	982.72	1178.12	1394.48	1606.82	1820.43	2009.48
180.0	714.71	744.35	830.09	986.96	1185.53	1396.81	1617.20	1820.64	2014.35
202.5	714.71	740.54	828.18	979.97	1176.22	1388.56	1598.35	1817.04	2019.22
225.0	714.71	739.05	820.98	978.91	1177.28	1390.46	1595.18	1807.73	1996.99
247.5	714.71	741.17	815.90	968.96	1145.10	1350.24	1555.59	1754.80	1954.23
270.0	714.71	749.43	832.20	983.15	1178.76	1386.44	1588.83	1799.68	1989.37
292.5	714.71	735.45	815.06	966.63	1150.82	1352.99	1565.96	1775.13	1963.96
315.0	714.71	730.37	800.45	935.94	1120.97	1322.72	1516.43	1724.32	1910.62
337.5	714.71	726.56	790.29	924.51	1101.70	1289.69	1500.55	1696.58	1883.31
360.0	714.71	725.93	789.02	929.16	1095.35	1285.03	1488.48	1689.17	1875.47

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	2065.58	2221.61	2352.65	2458.29	2543.82	2639.93	2732.23	2806.33	2835.97
22.5	2068.55	2251.67	2387.58	2485.81	2593.99	2696.88	2800.82	2873.44	2913.87
45.0	2078.92	2236.43	2361.97	2465.70	2560.33	2659.20	2754.89	2823.48	2851.00
67.5	2071.93	2249.76	2373.82	2476.92	2578.33	2696.03	2795.74	2862.22	2886.99
90.0	2118.08	2258.44	2390.12	2504.86	2604.36	2695.40	2795.53	2870.47	2905.41
112.5	2158.73	2328.94	2460.41	2559.27	2657.29	2765.26	2860.52	2938.22	2983.95
135.0	2154.71	2294.43	2420.61	2523.71	2609.45	2709.58	2809.08	2880.21	2907.31
157.5	2186.89	2355.83	2476.28	2580.23	2679.73	2789.18	2879.15	2946.05	2978.23
180.0	2199.17	2335.50	2457.65	2565.41	2650.09	2743.24	2835.54	2899.27	2925.31
202.5	2196.20	2359.42	2482.00	2582.98	2683.33	2783.89	2880.42	2950.71	2983.10
225.0	2181.17	2319.62	2438.81	2539.58	2625.11	2720.80	2809.93	2868.99	2894.82
247.5	2134.81	2298.88	2417.01	2519.05	2615.58	2718.26	2812.26	2874.92	2907.52
270.0	2175.67	2321.32	2458.92	2563.93	2647.13	2742.61	2836.18	2888.47	2905.62
292.5	2152.17	2326.40	2464.64	2572.19	2675.29	2781.98	2868.15	2930.17	2961.08
315.0	2103.26	2253.57	2394.14	2500.63	2587.85	2682.27	2780.71	2846.55	2869.42
337.5	2073.41	2257.60	2399.65	2504.86	2605.63	2715.30	2818.40	2891.86	2923.40
360.0	2065.58	2221.61	2352.65	2458.29	2543.82	2639.93	2732.23	2806.33	2835.97

C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	2839.35	2833.43	2823.05	2813.95	2753.83	2654.96	2517.99	2348.42	2161.06
22.5	2918.95	2913.66	2898.63	2877.46	2800.61	2696.67	2560.97	2382.92	2173.97
45.0	2850.79	2845.71	2832.79	2826.23	2762.08	2667.24	2523.49	2354.34	2168.05
67.5	2884.66	2875.98	2856.71	2836.60	2755.52	2649.88	2503.59	2327.03	2120.62
90.0	2902.44	2907.31	2898.42	2881.91	2829.19	2739.64	2614.95	2449.19	2255.06
112.5	2979.92	2984.58	2968.07	2934.41	2858.41	2749.59	2607.33	2410.87	2212.71
135.0	2899.27	2897.78	2884.66	2864.76	2807.81	2703.23	2568.16	2393.30	2196.84
157.5	2968.07	2963.41	2943.94	2914.93	2843.80	2733.08	2596.53	2405.58	2207.63
180.0	2921.50	2909.85	2898.42	2869.42	2801.88	2700.05	2554.83	2370.43	2175.03
202.5	2979.92	2974.21	2957.27	2914.51	2834.91	2721.44	2580.23	2388.85	2179.90
225.0	2885.08	2884.02	2873.65	2842.11	2776.48	2672.96	2536.41	2361.33	2166.99
247.5	2899.90	2896.73	2884.66	2852.06	2773.94	2672.74	2540.01	2350.53	2150.90
270.0	2899.69	2894.40	2879.37	2856.93	2784.74	2671.47	2519.68	2347.57	2137.98
292.5	2955.16	2945.21	2928.69	2897.36	2814.59	2699.42	2559.48	2364.08	2159.58
315.0	2871.53	2863.91	2850.57	2839.57	2774.15	2668.93	2530.27	2353.29	2156.83
337.5	2929.33	2922.77	2908.79	2887.20	2810.99	2704.08	2557.16	2367.47	2149.63
360.0	2839.35	2833.43	2823.05	2813.95	2753.83	2654.96	2517.99	2348.42	2161.06

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	1954.44	1717.97	1469.00	1195.06	911.17	621.77	365.61	171.69	51.23
22.5	1964.18	1731.94	1471.33	1196.54	906.09	636.17	381.28	174.44	51.66
45.0	1961.42	1725.59	1474.72	1191.04	912.23	628.33	370.48	165.98	47.42
67.5	1912.73	1683.46	1429.20	1150.82	877.51	592.98	354.18	158.78	42.13
90.0	2038.06	1794.39	1555.59	1258.78	964.73	667.29	405.20	191.59	63.51
112.5	1995.93	1763.06	1491.02	1213.90	927.47	639.34	358.41	154.54	48.90
135.0	1968.41	1737.23	1478.53	1195.06	895.50	615.84	343.17	120.25	33.03
157.5	1989.58	1753.74	1480.01	1203.32	901.64	606.53	339.36	139.72	24.56
180.0	1956.34	1720.51	1443.81	1166.69	879.62	593.61	333.86	144.81	18.84
202.5	1958.25	1712.46	1435.98	1159.07	859.09	573.08	331.31	135.28	21.81
225.0	1946.18	1705.69	1432.59	1158.22	860.99	572.23	313.74	128.93	27.95
247.5	1929.46	1708.44	1428.15	1152.93	858.45	584.51	330.89	127.45	23.71
270.0	1915.91	1676.68	1412.06	1121.81	826.91	537.30	288.76	79.18	24.35
292.5	1942.79	1712.46	1440.64	1158.22	866.50	581.55	318.40	109.66	33.66
315.0	1943.43	1700.39	1465.41	1187.65	905.24	609.49	352.49	150.52	39.80
337.5	1944.70	1708.02	1431.74	1172.62	899.31	619.23	365.61	163.86	47.21
360.0	1954.44	1717.97	1469.00	1195.06	911.17	621.77	365.61	171.69	51.23

C/γ(°)	180.0
0.0	7.65
22.5	7.65
45.0	7.65
67.5	7.65
90.0	7.65
112.5	7.65
135.0	7.65
157.5	7.65
180.0	7.65
202.5	7.65
225.0	7.65
247.5	7.65
270.0	7.65
292.5	7.65
315.0	7.65
337.5	7.65
360.0	7.65

3.2.2 Model Number: HIDFA-205S-EX39-8CCT-BYP, 3000K at 277V

Electrical data

Input Voltage(V)	Frequency (Hz)	Input Current (A)	Power (W)	Power Factor
277.09	60	0.8050	204.67	0.9173

Photometric data

Luminous Flux (lm)	Efficacy (lm/W)	Zonal Lumen in 0-60°(%lm)	Zonal Lumen in 0-90°(%lm)
29643.56	144.84	20.65	51.23

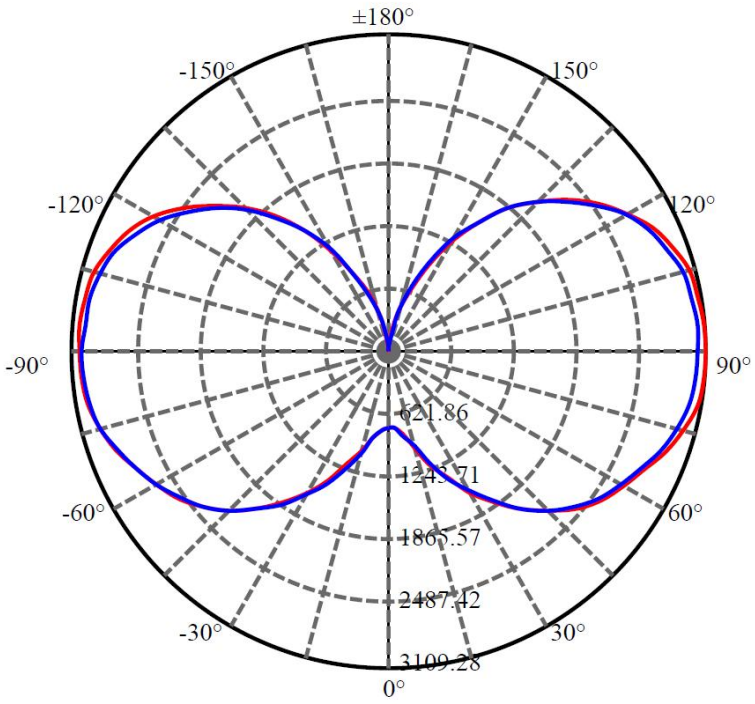
Zonal Flux Diagram

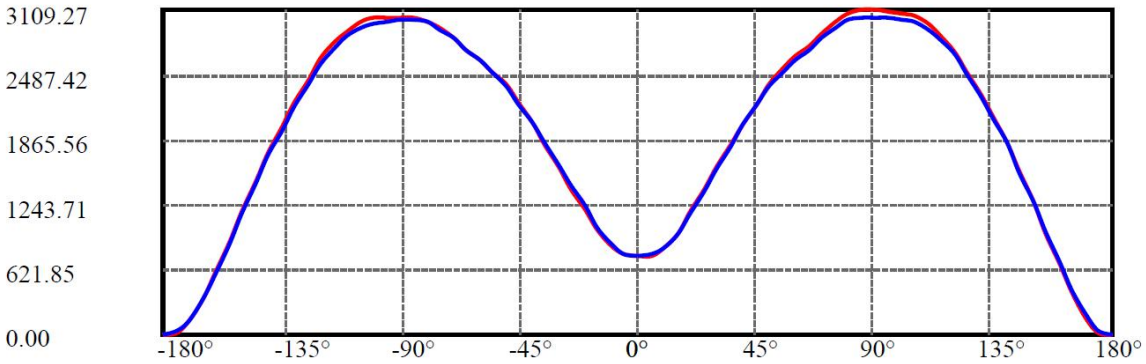
Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	743.761	0.000	0	0.00%	0.00%
5.0	764.273	18.028	18.028	0.00%	0.06%
10.0	844.270	57.543	75.571	0.00%	0.25%
15.0	992.567	108.960	184.531	0.00%	0.62%
20.0	1186.169	179.558	364.089	0.00%	1.23%
25.0	1395.411	270.760	634.849	0.00%	2.14%
30.0	1607.523	380.024	1014.873	0.00%	3.42%
35.0	1819.107	504.595	1519.468	0.00%	5.13%
40.0	2020.502	640.610	2160.078	0.00%	7.29%
45.0	2213.694	783.996	2944.074	0.00%	9.93%
50.0	2378.412	927.902	3871.976	0.00%	13.06%
55.0	2511.916	1063.320	4935.296	0.00%	16.65%
60.0	2620.493	1186.342	6121.638	0.00%	20.65%
65.0	2716.738	1297.491	7419.129	0.00%	25.03%
70.0	2821.941	1402.429	8821.558	0.00%	29.76%
75.0	2918.782	1500.533	10322.091	0.00%	34.82%
80.0	2988.684	1580.673	11902.764	0.00%	40.15%
85.0	3015.570	1631.500	13534.264	0.00%	45.66%
90.0	3017.422	1651.880	15186.144	0.00%	51.23%
95.0	3010.224	1650.417	16836.561	0.00%	56.80%
100.0	2999.097	1632.877	18469.438	0.00%	62.31%
105.0	2970.040	1597.175	20066.613	0.00%	67.69%
110.0	2896.977	1533.544	21600.157	0.00%	72.87%
115.0	2792.488	1440.609	23040.766	0.00%	77.73%
120.0	2644.363	1321.709	24362.475	0.00%	82.18%
125.0	2455.776	1178.883	25541.357	0.00%	86.16%
130.0	2250.874	1023.382	26564.739	0.00%	89.61%
135.0	2028.824	864.776	27429.515	0.00%	92.53%
140.0	1783.435	705.871	28135.386	0.00%	94.91%
145.0	1509.730	549.440	28684.825	0.00%	96.77%
150.0	1224.117	402.578	29087.403	0.00%	98.12%
155.0	926.212	272.126	29359.529	0.00%	99.04%
160.0	633.732	163.609	29523.138	0.00%	99.59%
165.0	369.381	82.671	29605.809	0.00%	99.87%
170.0	151.844	30.919	29636.728	0.00%	99.98%
175.0	27.402	6.412	29643.14	0.00%	100.00%
180.0	7.833	0.421	29643.561	0.00%	100.00%

Luminous Intensity Distribution Diagram

Light Distribution Curve [Unit:cd]





C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:165.7 Right:166.8

:C90/270Left:165.9 Right:167.6

Beam Angle(50%Imax):C0/180Left:143.3 Right:145.0

:C90/270Left:143.6 Right:145.6

Luminous Intensity Distribution Data

C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	743.76	754.51	823.31	974.26	1174.31	1383.05	1596.24	1813.02	2013.29
22.5	743.76	756.41	831.36	983.57	1173.26	1386.44	1609.36	1815.56	2010.54
45.0	743.76	758.74	832.20	985.90	1179.82	1393.85	1603.44	1825.93	2030.44
67.5	743.76	753.66	841.09	1003.68	1203.95	1412.48	1622.49	1839.27	2026.42
90.0	743.76	764.67	837.50	972.35	1160.13	1369.93	1581.21	1794.60	2005.25
112.5	743.76	767.00	841.52	982.51	1169.87	1380.94	1607.03	1810.69	2022.18
135.0	743.76	770.17	850.20	1000.08	1193.37	1401.68	1622.28	1834.83	2037.43
157.5	743.76	769.54	853.58	1003.47	1199.93	1405.07	1616.77	1829.75	2031.92
180.0	743.76	772.08	856.55	1000.93	1189.77	1395.76	1604.07	1815.98	2023.03
202.5	743.76	772.29	860.36	1012.57	1205.43	1425.61	1640.69	1844.14	2052.67
225.0	743.76	772.08	852.53	999.45	1197.18	1410.15	1620.79	1836.73	2040.60
247.5	743.76	770.60	850.20	987.38	1180.67	1382.21	1603.01	1811.54	2014.14
270.0	743.76	768.90	866.08	1022.52	1226.82	1434.71	1624.82	1827.63	2019.43
292.5	743.76	759.80	845.54	997.54	1195.70	1394.91	1599.41	1811.96	2015.62
315.0	743.76	759.38	836.65	986.53	1173.26	1379.88	1588.19	1804.76	2002.71
337.5	743.76	758.53	829.66	968.33	1155.26	1369.93	1580.57	1789.31	1982.38
360.0	743.76	754.51	823.31	974.26	1174.31	1383.05	1596.24	1813.02	2013.29

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	2208.06	2395.20	2545.51	2656.44	2763.35	2881.27	2984.79	3066.93	3105.89
22.5	2207.85	2370.65	2513.33	2631.25	2714.66	2827.08	2917.26	2991.15	3021.84
45.0	2224.99	2408.54	2552.71	2665.12	2766.74	2879.58	2986.28	3066.51	3104.19
67.5	2221.18	2382.29	2514.81	2623.21	2705.98	2805.69	2900.32	2961.72	2981.41
90.0	2203.19	2374.03	2514.81	2624.26	2726.09	2835.97	2935.04	3004.91	3030.95
112.5	2219.49	2367.05	2487.29	2605.00	2695.40	2787.06	2877.25	2945.42	2965.32
135.0	2228.59	2396.68	2523.28	2627.65	2729.48	2835.33	2926.79	2999.19	3027.35
157.5	2210.60	2367.26	2494.70	2599.50	2686.72	2785.79	2882.54	2940.12	2968.07
180.0	2216.31	2386.95	2519.90	2627.65	2731.81	2835.33	2935.04	3002.58	3029.67
202.5	2248.07	2388.43	2508.68	2611.14	2702.38	2795.96	2889.53	2956.21	2978.65
225.0	2231.56	2396.68	2524.34	2621.94	2723.13	2831.10	2922.55	3002.15	3026.50
247.5	2205.73	2358.79	2486.45	2593.14	2681.85	2783.04	2886.56	2958.33	2986.49
270.0	2210.39	2377.84	2502.75	2620.24	2726.31	2831.94	2924.67	2984.58	3003.42
292.5	2195.78	2354.56	2491.53	2596.32	2690.32	2792.57	2889.53	2955.16	2973.57
315.0	2211.87	2383.98	2524.34	2632.73	2737.31	2855.02	2947.75	3020.36	3055.08
337.5	2175.46	2345.66	2486.23	2592.30	2686.29	2788.33	2894.61	2963.62	2990.72
360.0	2208.06	2395.20	2545.51	2656.44	2763.35	2881.27	2984.79	3066.93	3105.89

C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	3101.44	3096.15	3078.58	3051.90	2967.65	2856.93	2706.62	2513.54	2302.27
22.5	3022.05	3005.12	2994.11	2972.09	2900.75	2808.23	2651.57	2464.64	2265.64
45.0	3109.28	3097.21	3075.19	3033.49	2950.92	2835.54	2668.93	2465.91	2258.02
67.5	2980.35	2966.80	2959.60	2932.08	2853.75	2741.55	2583.41	2407.90	2202.34
90.0	3039.62	3035.39	3015.91	2987.76	2915.14	2815.43	2683.54	2491.53	2284.48
112.5	2973.36	2962.78	2957.27	2936.53	2878.52	2779.87	2636.76	2455.54	2268.39
135.0	3032.00	3027.77	3016.97	2985.64	2903.50	2808.23	2663.01	2469.30	2268.60
157.5	2966.80	2963.20	2953.04	2928.90	2863.91	2760.18	2612.83	2426.53	2220.97
180.0	3038.35	3033.06	3025.02	2984.37	2903.08	2797.86	2643.53	2440.08	2220.55
202.5	2976.75	2971.46	2965.11	2938.85	2883.60	2783.46	2642.89	2457.44	2257.17
225.0	3036.66	3036.24	3026.29	2991.36	2921.92	2821.57	2681.64	2489.62	2281.94
247.5	2993.90	2994.11	2980.98	2957.48	2899.27	2808.66	2675.92	2500.00	2298.24
270.0	3003.64	2991.36	2976.54	2938.01	2856.08	2739.01	2584.68	2390.33	2179.27
292.5	2965.32	2960.02	2954.31	2929.96	2854.81	2745.99	2599.71	2417.64	2211.87
315.0	3051.48	3043.86	3030.73	2997.71	2910.49	2797.23	2645.01	2449.40	2240.02
337.5	2987.76	2979.08	2975.90	2954.52	2888.26	2780.08	2629.77	2453.00	2254.21
360.0	3101.44	3096.15	3078.58	3051.90	2967.65	2856.93	2706.62	2513.54	2302.27

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	2082.73	1831.44	1555.59	1267.46	970.66	678.72	402.45	153.48	19.69
22.5	2065.16	1811.33	1539.08	1246.50	956.90	658.82	389.53	147.77	12.07
45.0	2039.12	1790.16	1500.55	1223.43	920.48	630.45	366.03	156.87	10.16
67.5	1985.56	1739.14	1466.68	1186.80	890.21	606.53	349.94	141.42	9.74
90.0	2068.76	1830.80	1553.26	1272.76	978.07	691.00	418.75	197.52	34.08
112.5	2031.50	1786.35	1527.86	1234.23	932.34	641.88	380.43	177.41	22.44
135.0	2034.25	1789.52	1515.37	1228.09	924.51	625.79	360.53	156.66	21.59
157.5	1997.63	1749.09	1472.81	1183.42	890.42	595.94	336.61	142.26	22.86
180.0	1983.23	1733.00	1458.21	1177.49	881.74	601.45	339.78	128.72	26.04
202.5	2032.13	1784.02	1511.98	1227.03	918.15	616.27	353.12	109.24	41.07
225.0	2053.30	1810.27	1526.38	1238.88	940.81	640.40	368.15	128.93	38.95
247.5	2073.84	1838.85	1570.20	1276.35	968.75	679.78	392.50	171.06	40.86
270.0	1959.52	1719.02	1440.00	1167.12	874.97	582.82	339.36	141.63	32.39
292.5	2000.38	1754.59	1498.64	1200.14	899.74	602.51	345.50	147.98	37.26
315.0	2016.26	1775.13	1494.20	1212.21	930.01	641.46	380.43	162.59	39.80
337.5	2037.85	1792.27	1524.89	1243.96	941.65	645.90	386.99	165.98	29.43
360.0	2082.73	1831.44	1555.59	1267.46	970.66	678.72	402.45	153.48	19.69

C/γ(°)	180.0
0.0	7.83
22.5	7.83
45.0	7.83
67.5	7.83
90.0	7.83
112.5	7.83
135.0	7.83
157.5	7.83
180.0	7.83
202.5	7.83
225.0	7.83
247.5	7.83
270.0	7.83
292.5	7.83
315.0	7.83
337.5	7.83
360.0	7.83

3.2.3 Model Number: HIDFA-205S-EX39-8CCT-BYP, 4000K at 120V

Electrical data

Input Voltage(V)	Frequency (Hz)	Input Current (A)	Power (W)	Power Factor
120.02	60	1.6470	196.30	0.9932

Photometric data

Luminous Flux (lm)	Efficacy (lm/W)	Zonal Lumen in 0-60°(%lm)	Zonal Lumen in 0-90°(%lm)
31596.12	160.96	20.65	51.07

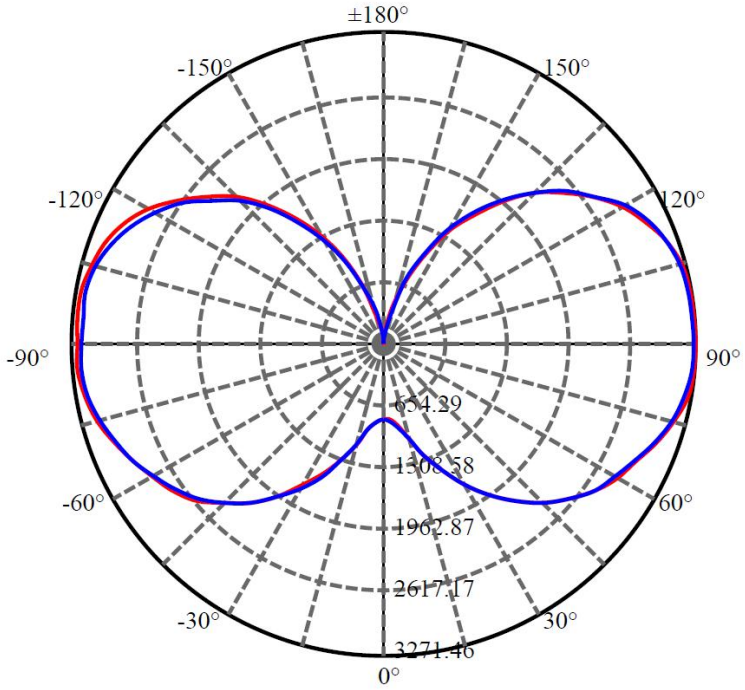
Zonal Flux Diagram

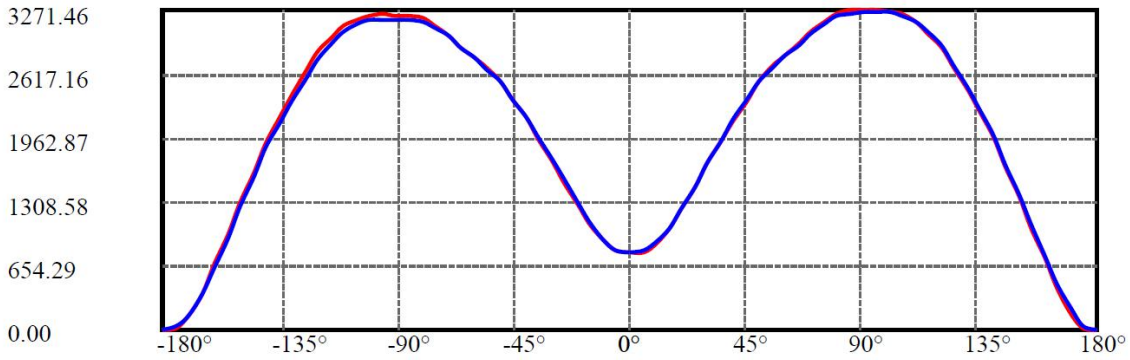
Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	784.165	0.000	0	0.00%	0.00%
5.0	806.268	19.013	19.013	0.00%	0.06%
10.0	893.394	60.802	79.815	0.00%	0.25%
15.0	1054.310	115.536	195.352	0.00%	0.62%
20.0	1263.349	191.008	386.36	0.00%	1.22%
25.0	1488.160	288.582	674.942	0.00%	2.14%
30.0	1716.436	405.544	1080.486	0.00%	3.42%
35.0	1944.502	539.099	1619.585	0.00%	5.13%
40.0	2162.356	685.198	2304.783	0.00%	7.29%
45.0	2359.219	837.206	3141.989	0.00%	9.94%
50.0	2534.208	988.788	4130.778	0.00%	13.07%
55.0	2672.803	1132.177	5262.955	0.00%	16.66%
60.0	2785.373	1261.642	6524.597	0.00%	20.65%
65.0	2885.570	1378.617	7903.214	0.00%	25.01%
70.0	2992.790	1488.439	9391.653	0.00%	29.72%
75.0	3092.988	1590.725	10982.377	0.00%	34.76%
80.0	3165.157	1674.505	12656.883	0.00%	40.06%
85.0	3194.740	1728.137	14385.019	0.00%	45.53%
90.0	3197.283	1750.186	16135.205	0.00%	51.07%
95.0	3194.410	1750.096	17885.301	0.00%	56.61%
100.0	3186.873	1733.948	19619.248	0.00%	62.09%
105.0	3160.414	1698.357	21317.605	0.00%	67.47%
110.0	3088.086	1633.257	22950.863	0.00%	72.64%
115.0	2982.552	1537.125	24487.987	0.00%	77.50%
120.0	2831.110	1413.312	25901.3	0.00%	81.98%
125.0	2634.866	1263.445	27164.745	0.00%	85.97%
130.0	2421.532	1099.429	28264.174	0.00%	89.45%
135.0	2188.249	931.474	29195.648	0.00%	92.40%
140.0	1930.298	762.582	29958.23	0.00%	94.82%
145.0	1637.559	595.270	30553.5	0.00%	96.70%
150.0	1330.643	437.089	30990.588	0.00%	98.08%
155.0	1008.626	296.036	31286.625	0.00%	99.02%
160.0	690.575	178.215	31464.84	0.00%	99.58%
165.0	401.764	90.024	31554.864	0.00%	99.87%
170.0	166.767	33.725	31588.588	0.00%	99.98%
175.0	30.729	7.065	31595.653	0.00%	100.00%
180.0	8.396	0.468	31596.121	0.00%	100.00%

Luminous Intensity Distribution Diagram

Light Distribution Curve [Unit:cd]





C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:166.0 Right:167.0

:C90/270Left:165.8 Right:167.8

Beam Angle(50%Imax):C0/180Left:144.5 Right:145.5

:C90/270Left:143.9 Right:146.2

Luminous Intensity Distribution Data

C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	784.17	797.36	873.47	1030.33	1242.85	1467.59	1699.29	1923.20	2138.03
22.5	784.17	797.78	877.05	1046.35	1260.34	1486.99	1725.86	1958.40	2159.54
45.0	784.17	798.84	881.90	1047.20	1247.48	1474.76	1707.31	1943.44	2156.80
67.5	784.17	800.10	894.13	1054.15	1262.87	1494.16	1716.37	1947.44	2157.22
90.0	784.17	807.06	886.54	1035.39	1238.63	1461.69	1698.45	1934.79	2153.84
112.5	784.17	811.49	889.92	1039.18	1243.48	1473.28	1700.98	1934.79	2228.69
135.0	784.17	808.96	900.67	1059.63	1261.40	1478.98	1713.00	1932.89	2163.33
157.5	784.17	816.34	903.83	1067.01	1276.16	1486.99	1719.11	1949.97	2161.43
180.0	784.17	814.44	904.67	1072.49	1278.27	1499.00	1718.69	1948.50	2169.02
202.5	784.17	817.39	907.41	1068.91	1282.90	1514.82	1737.45	1964.73	2177.88
225.0	784.17	812.33	906.57	1071.23	1278.27	1506.17	1735.77	1961.99	2180.41
247.5	784.17	812.33	894.13	1047.83	1258.03	1485.93	1712.58	1935.21	2154.90
270.0	784.17	812.33	918.38	1090.63	1310.31	1534.64	1751.37	1966.84	2164.60
292.5	784.17	802.42	894.98	1060.06	1278.48	1503.43	1726.91	1942.80	2152.79
315.0	784.17	796.73	884.64	1045.09	1259.92	1478.98	1708.78	1942.59	2153.42
337.5	784.17	794.41	876.00	1033.49	1234.20	1463.16	1691.07	1924.46	2125.80
360.0	784.17	797.36	873.47	1030.33	1242.85	1467.59	1699.29	1923.20	2138.03

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	2342.75	2537.56	2694.20	2813.11	2917.05	3042.92	3152.76	3234.98	3270.19
22.5	2372.69	2546.83	2694.41	2811.21	2907.35	3012.98	3116.28	3188.18	3219.38
45.0	2358.14	2550.84	2698.00	2819.01	2925.91	3047.98	3141.16	3224.44	3265.55
67.5	2360.88	2529.12	2668.69	2782.54	2873.83	2973.13	3072.01	3136.74	3161.61
90.0	2358.14	2541.77	2684.93	2799.83	2908.41	3020.57	3123.66	3201.25	3236.67
112.5	2353.92	2512.26	2646.34	2766.52	2858.86	2954.16	3050.51	3121.34	3143.48
135.0	2354.98	2528.70	2666.37	2778.96	2885.64	2997.38	3092.04	3168.99	3202.73
157.5	2360.25	2521.11	2659.20	2753.66	2848.74	2943.83	3043.13	3101.74	3125.56
180.0	2364.25	2548.73	2684.50	2792.87	2893.86	3005.81	3109.75	3183.75	3215.16
202.5	2388.50	2539.03	2664.26	2776.00	2862.02	2958.37	3055.35	3124.72	3150.86
225.0	2375.85	2555.48	2682.40	2790.97	2897.65	3003.70	3100.47	3174.90	3212.21
247.5	2349.49	2508.88	2642.55	2751.34	2852.11	2950.99	3052.82	3128.30	3154.87
270.0	2362.57	2537.34	2664.05	2774.95	2887.96	2998.01	3093.52	3150.02	3173.21
292.5	2355.19	2516.68	2654.78	2768.84	2866.24	2966.17	3069.69	3129.99	3150.65
315.0	2355.40	2553.16	2699.26	2811.63	2913.89	3033.22	3135.68	3213.27	3244.68
337.5	2334.53	2519.85	2660.89	2774.53	2869.61	2975.45	3078.97	3159.93	3189.02
360.0	2342.75	2537.56	2694.20	2813.11	2917.05	3042.92	3152.76	3234.98	3270.19

C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	3271.46	3265.55	3253.54	3226.76	3150.23	3032.16	2876.57	2673.33	2459.76
22.5	3216.43	3205.89	3196.40	3179.96	3112.07	3007.50	2853.38	2659.84	2451.54
45.0	3271.25	3261.76	3244.05	3211.58	3127.04	3014.66	2850.85	2643.18	2422.23
67.5	3156.13	3150.44	3143.48	3119.03	3047.98	2932.23	2771.37	2579.30	2379.22
90.0	3250.58	3248.48	3242.78	3216.64	3142.64	3049.03	2901.45	2705.38	2481.69
112.5	3150.44	3151.28	3145.17	3125.77	3068.00	2972.08	2832.51	2646.34	2438.25
135.0	3209.68	3207.79	3207.36	3170.68	3096.47	2995.06	2846.21	2641.49	2429.82
157.5	3129.57	3126.62	3118.18	3096.89	3031.74	2936.87	2784.44	2592.37	2391.03
180.0	3217.27	3221.49	3211.37	3175.95	3099.63	2992.11	2843.68	2633.69	2407.68
202.5	3154.02	3151.28	3146.86	3121.77	3057.67	2961.11	2824.28	2626.74	2416.12
225.0	3218.12	3221.07	3214.11	3179.96	3108.69	3005.60	2857.17	2666.58	2439.94
247.5	3162.25	3164.14	3156.55	3131.68	3070.96	2981.77	2838.83	2653.09	2454.49
270.0	3168.57	3167.10	3164.57	3128.09	3041.44	2927.17	2764.62	2564.54	2340.64
292.5	3148.75	3144.75	3137.79	3119.24	3043.13	2933.28	2774.53	2584.99	2379.22
315.0	3248.26	3244.26	3237.93	3206.31	3126.62	3005.39	2857.81	2653.09	2426.24
337.5	3183.75	3178.69	3169.84	3156.34	3085.08	2974.82	2820.07	2633.90	2426.66
360.0	3271.46	3265.55	3253.54	3226.76	3150.23	3032.16	2876.57	2673.33	2459.76

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	2229.95	1965.57	1665.14	1367.24	1043.19	722.94	427.99	169.51	21.29
22.5	2231.85	1968.52	1688.12	1373.77	1045.93	729.68	434.94	170.14	12.65
45.0	2190.53	1931.42	1626.14	1318.32	1007.14	693.42	405.22	169.30	12.23
67.5	2148.57	1891.99	1605.90	1303.35	984.58	665.17	383.71	161.92	10.96
90.0	2252.30	1995.93	1696.13	1391.06	1076.08	754.35	458.14	219.47	43.22
112.5	2199.59	1939.01	1663.66	1350.16	1026.96	725.47	420.40	197.97	26.14
135.0	2186.31	1924.67	1632.46	1322.12	995.54	675.71	395.94	174.99	25.72
157.5	2150.68	1901.90	1603.37	1305.67	979.73	658.21	370.01	162.13	24.88
180.0	2166.92	1914.55	1604.63	1299.98	982.26	662.43	371.27	141.05	29.31
202.5	2177.25	1918.14	1636.26	1323.17	991.33	674.45	377.60	115.11	44.06
225.0	2196.01	1941.12	1642.37	1338.98	1010.09	690.47	408.38	137.25	43.01
247.5	2216.67	1959.67	1675.68	1363.23	1046.35	716.61	416.60	188.90	46.59
270.0	2121.17	1862.90	1562.04	1260.98	940.51	620.47	357.99	147.16	36.26
292.5	2151.95	1897.47	1613.49	1306.94	971.72	660.74	377.39	162.55	40.90
315.0	2192.43	1930.79	1632.46	1321.06	1005.03	689.84	404.79	173.09	41.96
337.5	2199.81	1941.12	1653.12	1344.26	1031.59	709.23	417.87	177.73	32.47
360.0	2229.95	1965.57	1665.14	1367.24	1043.19	722.94	427.99	169.51	21.29

C/γ(°)	180.0
0.0	8.40
22.5	8.40
45.0	8.40
67.5	8.40
90.0	8.40
112.5	8.40
135.0	8.40
157.5	8.40
180.0	8.40
202.5	8.40
225.0	8.40
247.5	8.40
270.0	8.40
292.5	8.40
315.0	8.40
337.5	8.40
360.0	8.40

3.2.4 Model Number: HIDFA-205S-EX39-8CCT-BYP, 4000K at 277V

Electrical data

Input Voltage(V)	Frequency (Hz)	Input Current (A)	Power (W)	Power Factor
277.09	60	0.7970	202.47	0.9159

Photometric data

Luminous Flux (lm)	Efficacy (lm/W)	Zonal Lumen in 0-60°(%lm)	Zonal Lumen in 0-90°(%lm)
33135.30	163.66	20.64	51.06

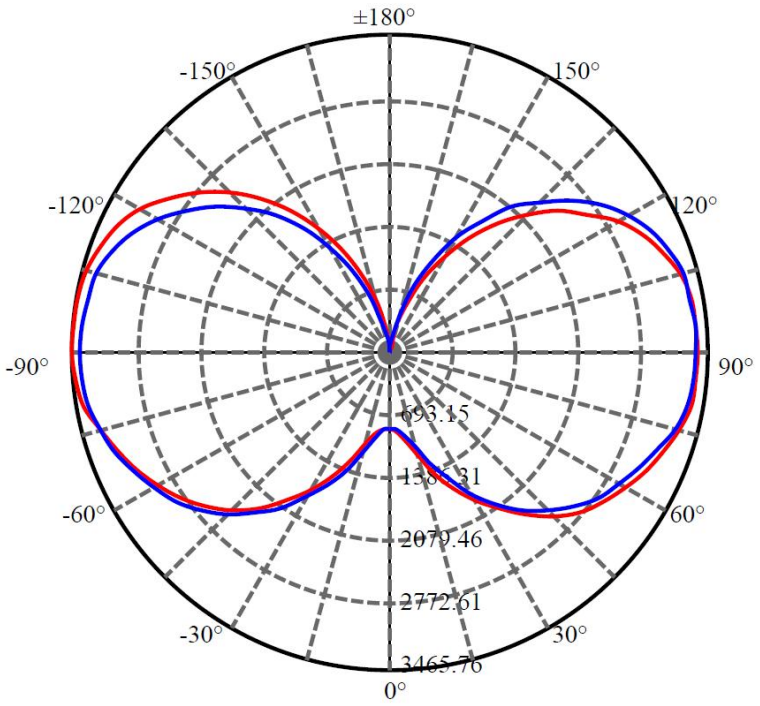
Zonal Flux Diagram

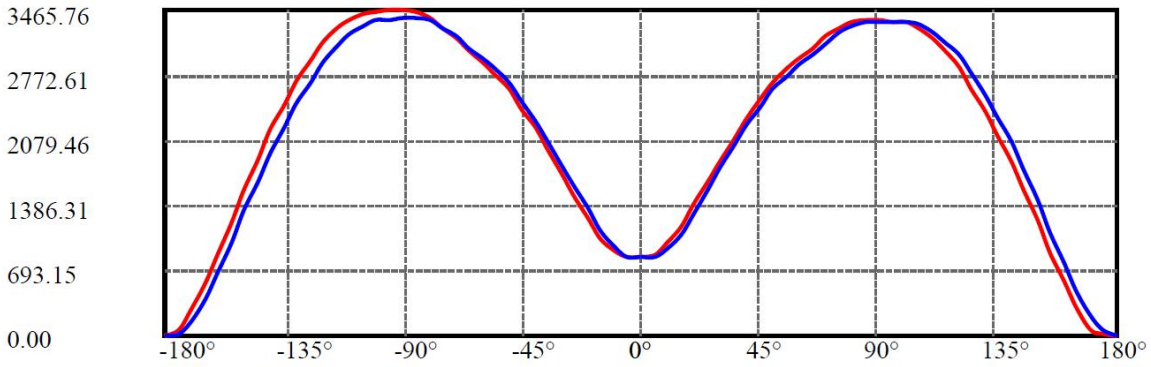
Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	831.433	0.000	0	0.00%	0.00%
5.0	851.315	20.117	20.117	0.00%	0.06%
10.0	941.576	64.137	84.254	0.00%	0.25%
15.0	1104.585	121.377	205.631	0.00%	0.62%
20.0	1326.144	200.326	405.957	0.00%	1.23%
25.0	1562.178	302.932	708.889	0.00%	2.14%
30.0	1801.980	425.737	1134.626	0.00%	3.42%
35.0	2038.346	565.515	1700.141	0.00%	5.13%
40.0	2263.156	717.673	2417.814	0.00%	7.30%
45.0	2473.836	877.092	3294.906	0.00%	9.94%
50.0	2653.097	1035.972	4330.878	0.00%	13.07%
55.0	2800.303	1185.751	5516.629	0.00%	16.65%
60.0	2921.505	1322.580	6839.208	0.00%	20.64%
65.0	3028.244	1446.395	8285.604	0.00%	25.01%
70.0	3139.150	1561.624	9847.227	0.00%	29.72%
75.0	3243.116	1668.222	11515.449	0.00%	34.75%
80.0	3317.111	1755.334	13270.783	0.00%	40.05%
85.0	3352.005	1812.159	15082.942	0.00%	45.52%
90.0	3356.742	1836.907	16919.849	0.00%	51.06%
95.0	3351.050	1836.646	18756.495	0.00%	56.61%
100.0	3342.439	1818.781	20575.277	0.00%	62.09%
105.0	3313.051	1780.824	22356.1	0.00%	67.47%
110.0	3236.562	1711.964	24068.064	0.00%	72.64%
115.0	3124.064	1610.552	25678.615	0.00%	77.50%
120.0	2968.088	1481.014	27159.629	0.00%	81.97%
125.0	2765.714	1325.352	28484.981	0.00%	85.97%
130.0	2540.148	1153.671	29638.652	0.00%	89.45%
135.0	2294.216	976.854	30615.506	0.00%	92.40%
140.0	2021.403	799.072	31414.578	0.00%	94.81%
145.0	1720.848	624.366	32038.944	0.00%	96.69%
150.0	1398.825	459.394	32498.338	0.00%	98.08%
155.0	1056.502	310.724	32809.062	0.00%	99.02%
160.0	725.059	186.853	32995.915	0.00%	99.58%
165.0	426.865	94.935	33090.849	0.00%	99.87%
170.0	180.111	36.005	33126.855	0.00%	99.97%
175.0	39.671	7.862	33134.717	0.00%	100.00%
180.0	9.178	0.584	33135.301	0.00%	100.00%

Luminous Intensity Distribution Diagram

Light Distribution Curve [Unit:cd]





C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:168.7 Right:164.1

:C90/270Left:166.1 Right:167.7

Beam Angle(50%Imax):C0/180Left:147.4 Right:141.9

:C90/270Left:144.1 Right:146.2

Luminous Intensity Distribution Data

C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	831.43	869.31	983.73	1172.87	1402.57	1630.14	1857.07	2087.61	2301.38
22.5	831.43	874.83	982.24	1177.12	1410.42	1645.21	1879.78	2100.77	2315.18
45.0	831.43	866.12	982.45	1174.15	1413.61	1633.96	1868.11	2100.98	2309.02
67.5	831.43	856.36	969.29	1154.41	1379.64	1612.73	1853.67	2076.15	2287.58
90.0	831.43	844.47	924.93	1083.29	1301.52	1542.04	1777.46	2017.34	2239.39
112.5	831.43	842.98	915.16	1053.78	1277.32	1522.30	1758.14	1995.69	2228.57
135.0	831.43	838.53	908.37	1044.02	1259.91	1503.19	1751.78	1988.69	2232.81
157.5	831.43	839.59	903.27	1030.22	1244.63	1481.75	1726.09	1971.91	2206.28
180.0	831.43	838.10	904.76	1033.40	1243.14	1482.81	1731.18	1972.13	2208.40
202.5	831.43	843.41	904.33	1044.44	1260.55	1504.89	1766.00	2008.85	2241.30
225.0	831.43	840.65	907.31	1046.78	1255.45	1489.18	1745.41	1982.32	2233.45
247.5	831.43	841.71	916.22	1058.67	1259.49	1512.32	1761.97	2009.28	2233.24
270.0	831.43	843.83	949.13	1126.81	1353.53	1591.50	1814.61	2063.20	2281.43
292.5	831.43	854.02	961.44	1138.91	1366.90	1600.84	1833.29	2068.72	2286.52
315.0	831.43	861.88	974.18	1160.35	1391.10	1617.82	1848.79	2083.58	2301.17
337.5	831.43	865.27	978.42	1174.15	1398.53	1624.19	1858.34	2086.34	2304.78
360.0	831.43	869.31	983.73	1172.87	1402.57	1630.14	1857.07	2087.61	2301.38

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	2515.15	2697.93	2835.28	2957.55	3063.06	3180.03	3278.10	3339.03	3357.07
22.5	2521.10	2680.52	2817.02	2926.14	3009.56	3109.13	3204.65	3254.96	3272.58
45.0	2524.92	2700.48	2834.85	2948.85	3054.36	3165.17	3264.52	3326.72	3353.04
67.5	2498.17	2655.68	2799.40	2905.76	3005.11	3112.73	3215.90	3268.55	3283.20
90.0	2442.98	2625.54	2762.25	2875.19	2985.58	3104.45	3219.94	3299.12	3332.87
112.5	2441.49	2620.66	2758.86	2889.20	2999.37	3105.94	3215.27	3293.81	3332.66
135.0	2446.80	2643.37	2803.86	2932.29	3052.44	3169.84	3285.32	3381.06	3439.65
157.5	2421.32	2608.98	2765.01	2894.51	3010.84	3113.16	3227.58	3318.44	3376.18
180.0	2419.62	2625.33	2785.60	2912.12	3034.83	3158.80	3277.04	3375.76	3441.99
202.5	2462.29	2647.19	2801.95	2934.20	3046.08	3154.55	3260.27	3354.10	3405.90
225.0	2445.52	2634.24	2806.41	2934.84	3058.81	3175.78	3284.26	3378.51	3447.30
247.5	2451.68	2626.39	2769.47	2901.30	3010.62	3116.13	3215.90	3307.19	3348.16
270.0	2491.38	2681.80	2834.00	2955.86	3063.91	3183.21	3278.32	3347.95	3369.17
292.5	2494.77	2653.14	2803.22	2918.28	3009.56	3111.46	3204.23	3263.24	3271.52
315.0	2502.41	2680.95	2822.33	2944.82	3049.69	3164.32	3261.33	3320.35	3338.18
337.5	2501.78	2667.36	2805.35	2913.19	2998.10	3101.70	3197.22	3244.99	3262.61
360.0	2515.15	2697.93	2835.28	2957.55	3063.06	3180.03	3278.10	3339.03	3357.07

C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	3354.95	3342.43	3330.33	3281.93	3173.66	3035.89	2857.57	2622.36	2387.99
22.5	3266.22	3254.75	3248.38	3220.79	3128.66	2999.59	2826.36	2619.38	2387.57
45.0	3350.71	3343.70	3330.33	3283.62	3179.18	3045.44	2877.10	2661.84	2421.11
67.5	3282.35	3276.41	3264.31	3234.80	3150.31	3024.21	2855.66	2658.02	2429.60
90.0	3341.36	3336.91	3327.78	3304.85	3235.86	3131.84	2992.37	2793.03	2566.52
112.5	3339.45	3339.24	3331.39	3316.74	3263.24	3172.81	3037.80	2849.50	2642.95
135.0	3453.45	3451.97	3452.39	3428.40	3361.74	3265.58	3130.99	2931.23	2703.24
157.5	3386.37	3385.10	3379.15	3366.63	3315.25	3223.33	3083.23	2900.87	2691.99
180.0	3455.15	3458.76	3446.02	3420.55	3365.14	3270.46	3126.32	2933.57	2711.30
202.5	3422.03	3416.51	3405.26	3397.20	3349.64	3267.07	3128.44	2939.30	2728.29
225.0	3465.76	3460.03	3449.42	3418.21	3353.68	3253.05	3106.79	2904.48	2672.46
247.5	3361.74	3358.77	3354.95	3334.36	3282.99	3193.40	3044.80	2863.09	2651.65
270.0	3370.66	3360.89	3348.16	3303.79	3210.39	3088.96	2914.88	2697.50	2469.51
292.5	3265.37	3261.55	3255.60	3227.37	3138.42	3007.23	2837.61	2644.65	2414.53
315.0	3339.88	3328.63	3320.56	3268.76	3169.63	3031.85	2861.81	2638.91	2400.73
337.5	3252.42	3241.17	3235.01	3200.83	3107.21	2974.32	2807.68	2593.70	2362.94
360.0	3354.95	3342.43	3330.33	3281.93	3173.66	3035.89	2857.57	2622.36	2387.99

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	2135.80	1844.97	1539.70	1219.79	890.96	576.57	296.99	65.38	25.69
22.5	2138.35	1870.23	1562.63	1237.20	901.57	581.02	305.27	38.00	25.05
45.0	2176.56	1890.19	1582.37	1262.25	929.38	612.87	327.98	97.01	23.56
67.5	2183.14	1916.08	1609.76	1287.08	956.98	637.92	352.82	127.80	29.08
90.0	2319.64	2068.29	1764.09	1446.72	1099.21	773.14	470.85	219.29	65.38
112.5	2394.79	2127.31	1843.91	1519.32	1161.62	810.08	493.14	231.60	72.81
135.0	2464.63	2186.75	1880.00	1552.23	1201.11	861.03	528.59	257.08	78.76
157.5	2443.61	2175.28	1891.25	1564.12	1217.03	861.45	541.96	271.51	77.91
180.0	2454.86	2188.87	1882.54	1560.29	1214.27	868.46	552.37	269.81	61.14
202.5	2486.92	2218.17	1925.21	1595.53	1242.72	883.74	558.52	282.98	38.21
225.0	2432.57	2162.33	1858.98	1548.19	1189.43	843.83	533.47	261.96	31.42
247.5	2405.19	2137.92	1850.28	1524.21	1180.09	827.06	513.09	250.50	44.79
270.0	2227.51	1946.44	1631.20	1326.78	990.52	668.06	386.15	159.43	13.59
292.5	2168.49	1895.28	1601.69	1272.01	928.96	622.84	344.75	130.13	13.37
315.0	2155.54	1871.29	1564.12	1241.44	908.79	595.88	322.46	115.91	16.35
337.5	2119.88	1843.06	1545.86	1224.04	891.38	576.99	301.45	103.38	17.62
360.0	2135.80	1844.97	1539.70	1219.79	890.96	576.57	296.99	65.38	25.69

C/γ(°)	180.0
0.0	9.18
22.5	9.18
45.0	9.18
67.5	9.18
90.0	9.18
112.5	9.18
135.0	9.18
157.5	9.18
180.0	9.18
202.5	9.18
225.0	9.18
247.5	9.18
270.0	9.18
292.5	9.18
315.0	9.18
337.5	9.18
360.0	9.18

3.2.5 Model Number: HIDFA-205S-EX39-8CCT-BYP, 5000K at 120V

Electrical data

Input Voltage(V)	Frequency (Hz)	Input Current (A)	Power (W)	Power Factor
120.11	60	1.6910	201.76	0.9933

Photometric data

Luminous Flux (lm)	Efficacy (lm/W)	Zonal Lumen in 0-60°(%lm)	Zonal Lumen in 0-90°(%lm)
31452.24	155.89	20.65	50.99

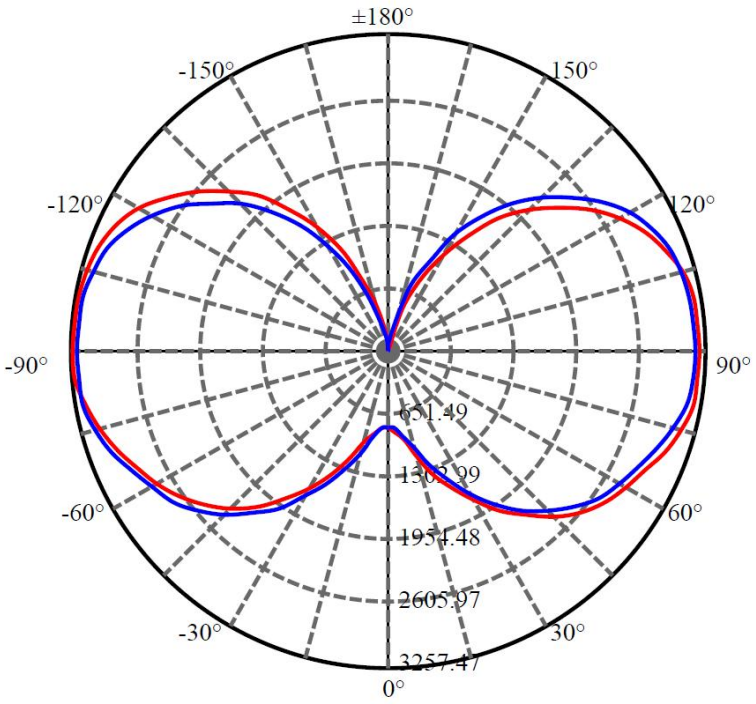
Zonal Flux Diagram

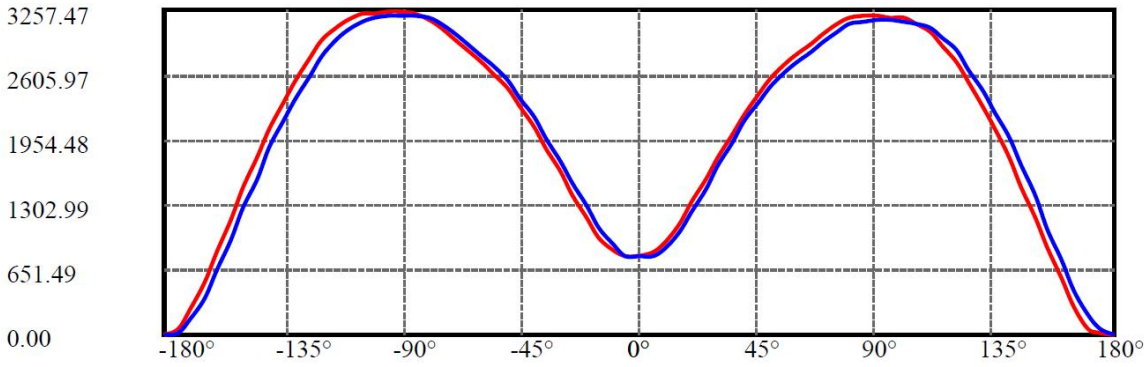
Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	785.852	0.000	0	0.00%	0.00%
5.0	804.615	19.014	19.014	0.00%	0.06%
10.0	891.413	60.672	79.686	0.00%	0.25%
15.0	1047.941	115.041	194.727	0.00%	0.62%
20.0	1259.776	190.188	384.915	0.00%	1.22%
25.0	1484.207	287.793	672.708	0.00%	2.14%
30.0	1714.658	404.819	1077.527	0.00%	3.43%
35.0	1938.944	538.018	1615.546	0.00%	5.14%
40.0	2152.631	682.648	2298.194	0.00%	7.31%
45.0	2351.393	833.957	3132.15	0.00%	9.96%
50.0	2519.829	984.302	4116.452	0.00%	13.09%
55.0	2657.025	1125.620	5242.072	0.00%	16.67%
60.0	2768.791	1254.162	6496.234	0.00%	20.65%
65.0	2868.556	1370.450	7866.684	0.00%	25.01%
70.0	2972.237	1478.926	9345.61	0.00%	29.71%
75.0	3068.482	1578.947	10924.557	0.00%	34.73%
80.0	3138.185	1660.731	12585.288	0.00%	40.01%
85.0	3169.186	1713.864	14299.153	0.00%	45.46%
90.0	3175.141	1737.126	16036.279	0.00%	50.99%
95.0	3172.124	1737.931	17774.21	0.00%	56.51%
100.0	3166.223	1722.281	19496.491	0.00%	61.99%
105.0	3139.627	1687.270	21183.76	0.00%	67.35%
110.0	3070.930	1623.340	22807.1	0.00%	72.51%
115.0	2968.519	1529.227	24336.328	0.00%	77.38%
120.0	2823.040	1407.939	25744.266	0.00%	81.85%
125.0	2633.619	1261.291	27005.558	0.00%	85.86%
130.0	2423.689	1099.627	28105.185	0.00%	89.36%
135.0	2192.431	932.755	29037.939	0.00%	92.32%
140.0	1935.437	764.308	29802.248	0.00%	94.75%
145.0	1645.828	597.507	30399.755	0.00%	96.65%
150.0	1341.122	439.849	30839.604	0.00%	98.05%
155.0	1018.792	298.649	31138.253	0.00%	99.00%
160.0	697.295	179.986	31318.239	0.00%	99.57%
165.0	409.578	91.222	31409.461	0.00%	99.86%
170.0	174.231	34.631	31444.092	0.00%	99.97%
175.0	37.895	7.588	31451.681	0.00%	100.00%
180.0	8.854	0.559	31452.239	0.00%	100.00%

Luminous Intensity Distribution Diagram

Light Distribution Curve [Unit:cd]





C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:168.8 Right:164.4

:C90/270Left:166.2 Right:167.7

Beam Angle(50%Imax):C0/180Left:147.7 Right:142.8

:C90/270Left:144.4 Right:146.6

Luminous Intensity Distribution Data

C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	785.85	825.64	937.42	1118.64	1340.50	1558.98	1777.45	1999.11	2205.31
22.5	785.85	826.28	930.01	1110.38	1343.46	1565.12	1797.57	2001.44	2208.69
45.0	785.85	819.50	930.43	1118.42	1337.54	1562.36	1780.00	2000.17	2208.27
67.5	785.85	807.22	916.46	1097.89	1318.91	1535.90	1765.81	1978.57	2180.11
90.0	785.85	795.58	874.76	1026.33	1233.80	1458.21	1694.04	1921.62	2135.66
112.5	785.85	796.00	863.11	1007.92	1212.00	1448.68	1684.09	1898.97	2120.20
135.0	785.85	790.07	854.64	992.67	1200.14	1425.82	1665.46	1901.94	2126.13
157.5	785.85	793.46	849.99	974.89	1179.18	1404.65	1632.02	1868.70	2090.99
180.0	785.85	793.25	854.43	973.62	1173.68	1394.48	1632.23	1855.36	2081.67
202.5	785.85	796.21	852.95	985.48	1190.83	1412.27	1672.03	1906.59	2118.08
225.0	785.85	793.88	854.43	987.59	1189.98	1411.21	1646.20	1878.65	2107.71
247.5	785.85	796.21	866.50	996.27	1196.97	1433.65	1668.85	1888.60	2114.27
270.0	785.85	798.97	906.30	1073.12	1288.42	1516.00	1735.54	1970.10	2176.30
292.5	785.85	807.86	913.29	1090.06	1303.03	1521.93	1748.24	1972.43	2178.21
315.0	785.85	814.84	925.14	1104.03	1315.94	1541.41	1761.15	1987.89	2186.89
337.5	785.85	818.87	932.76	1109.75	1332.03	1556.65	1773.86	1992.97	2203.61
360.0	785.85	825.64	937.42	1118.64	1340.50	1558.98	1777.45	1999.11	2205.31

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	2405.79	2578.11	2702.81	2810.56	2910.06	3022.27	3115.84	3173.21	3190.15
22.5	2405.15	2556.31	2680.79	2784.95	2868.15	2964.47	3047.88	3097.42	3106.10
45.0	2411.29	2571.76	2702.59	2808.66	2907.52	3012.74	3103.14	3164.11	3183.58
67.5	2378.05	2529.21	2662.37	2763.99	2855.87	2955.37	3049.57	3102.29	3115.41
90.0	2328.09	2498.51	2624.26	2722.92	2825.81	2938.85	3039.20	3112.87	3145.26
112.5	2320.26	2488.99	2620.03	2743.03	2842.95	2946.69	3044.71	3120.28	3153.31
135.0	2323.44	2506.77	2656.44	2777.54	2885.51	2993.47	3098.27	3186.97	3245.61
157.5	2288.50	2464.85	2616.64	2739.22	2838.30	2936.10	3039.20	3129.81	3176.38
180.0	2278.34	2466.76	2616.64	2737.74	2846.98	2953.89	3067.57	3165.80	3224.23
202.5	2322.80	2498.94	2636.33	2759.75	2867.72	2965.74	3069.26	3147.17	3192.69
225.0	2304.81	2484.33	2642.47	2762.29	2868.78	2984.58	3084.51	3173.63	3234.60
247.5	2319.84	2484.54	2624.05	2747.26	2846.34	2940.76	3037.72	3120.28	3160.08
270.0	2375.94	2555.88	2696.67	2795.53	2906.04	3018.45	3109.91	3172.79	3195.86
292.5	2374.03	2530.48	2666.82	2772.88	2864.76	2962.14	3051.27	3102.08	3113.30
315.0	2383.77	2551.86	2682.48	2793.84	2899.27	3008.72	3093.61	3152.04	3175.33
337.5	2402.19	2549.96	2681.00	2780.50	2862.85	2951.56	3044.07	3090.22	3095.09
360.0	2405.79	2578.11	2702.81	2810.56	2910.06	3022.27	3115.84	3173.21	3190.15

C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	3189.30	3182.10	3178.29	3125.58	3032.43	2903.08	2736.89	2522.01	2294.22
22.5	3111.39	3102.08	3100.38	3072.65	2987.33	2872.38	2700.69	2506.98	2290.41
45.0	3185.70	3180.20	3169.40	3123.25	3033.06	2903.50	2744.09	2538.95	2320.05
67.5	3115.20	3111.39	3103.14	3074.77	2994.11	2878.10	2719.11	2531.75	2317.08
90.0	3148.02	3149.71	3143.57	3123.46	3066.93	2974.84	2853.54	2658.77	2448.76
112.5	3158.18	3162.41	3158.81	3142.72	3095.73	3016.55	2882.12	2704.50	2513.54
135.0	3255.98	3256.83	3257.47	3239.05	3179.77	3095.51	2967.01	2785.37	2578.33
157.5	3188.45	3191.84	3184.64	3170.03	3121.13	3043.22	2914.93	2750.23	2547.63
180.0	3233.76	3231.64	3224.65	3209.83	3157.54	3070.96	2944.15	2762.29	2549.32
202.5	3212.16	3207.08	3195.44	3192.69	3151.40	3078.37	2945.84	2773.30	2585.10
225.0	3255.14	3255.35	3247.73	3221.90	3156.48	3066.93	2941.40	2745.15	2530.48
247.5	3175.33	3172.79	3168.34	3152.67	3108.85	3027.13	2896.73	2722.07	2530.27
270.0	3193.53	3190.36	3182.31	3140.18	3064.18	2947.32	2791.93	2586.79	2371.92
292.5	3110.76	3102.50	3099.54	3074.56	2993.69	2874.71	2715.93	2536.41	2319.41
315.0	3175.33	3170.88	3163.68	3115.63	3023.32	2899.27	2730.54	2519.05	2305.23
337.5	3094.03	3086.83	3082.18	3055.08	2968.92	2844.44	2683.75	2494.28	2277.28
360.0	3189.30	3182.10	3178.29	3125.58	3032.43	2903.08	2736.89	2522.01	2294.22

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	2054.57	1789.31	1481.07	1183.42	868.40	562.07	288.76	63.30	24.35
22.5	2063.68	1799.68	1502.45	1189.13	877.30	559.32	293.21	36.41	24.77
45.0	2089.29	1817.25	1515.58	1218.98	901.85	586.42	312.47	95.69	22.65
67.5	2076.59	1821.70	1540.77	1234.23	921.33	615.84	341.26	128.50	28.16
90.0	2220.76	1979.21	1691.93	1389.19	1057.88	742.65	452.83	209.59	59.91
112.5	2285.75	2037.00	1766.66	1460.32	1119.70	769.54	477.18	221.23	68.38
135.0	2343.34	2091.41	1790.79	1482.34	1158.01	821.83	502.58	248.12	76.21
157.5	2314.76	2073.63	1795.03	1486.15	1158.22	830.93	516.34	258.49	72.83
180.0	2320.26	2072.78	1784.23	1478.95	1150.82	826.49	527.35	256.58	56.31
202.5	2354.98	2110.25	1826.99	1524.47	1190.62	851.47	539.84	275.21	36.20
225.0	2306.71	2055.00	1762.42	1460.96	1139.17	808.28	502.37	254.68	33.24
247.5	2296.97	2043.56	1775.13	1463.92	1135.78	807.01	494.54	242.40	43.82
270.0	2147.30	1879.50	1562.36	1280.80	957.74	650.77	368.36	156.45	13.34
292.5	2086.75	1823.82	1543.95	1228.30	919.21	601.45	333.01	125.12	12.91
315.0	2071.93	1789.73	1492.08	1187.86	876.45	568.85	308.24	115.17	16.51
337.5	2045.26	1783.17	1501.82	1188.92	868.19	553.81	294.90	100.77	16.72
360.0	2054.57	1789.31	1481.07	1183.42	868.40	562.07	288.76	63.30	24.35

C/γ(°)	180.0
0.0	8.85
22.5	8.85
45.0	8.85
67.5	8.85
90.0	8.85
112.5	8.85
135.0	8.85
157.5	8.85
180.0	8.85
202.5	8.85
225.0	8.85
247.5	8.85
270.0	8.85
292.5	8.85
315.0	8.85
337.5	8.85
360.0	8.85

3.2.6 Model Number: HIDFA-205S-EX39-8CCT-BYP, 5000K at 277V

Electrical data

Input Voltage(V)	Frequency (Hz)	Input Current (A)	Power (W)	Power Factor
277.12	60	0.8060	204.88	0.9173

Photometric data

Luminous Flux (lm)	Efficacy (lm/W)	Zonal Lumen in 0-60°(%lm)	Zonal Lumen in 0-90°(%lm)
32514.79	158.70	20.65	50.97

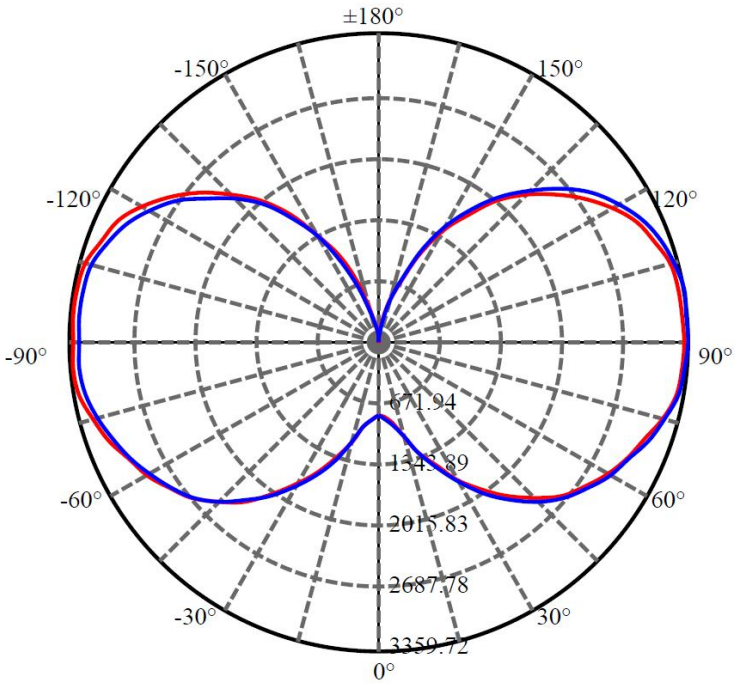
Zonal Flux Diagram

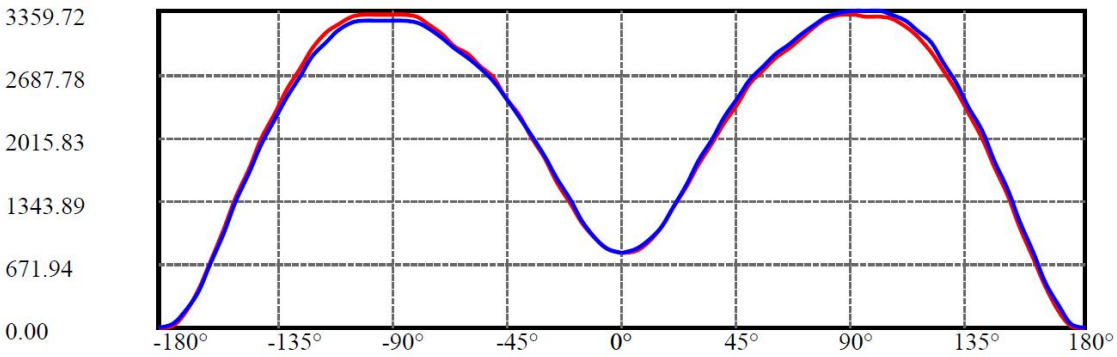
Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	801.904	0.000	0	0.00%	0.00%
5.0	825.587	19.456	19.456	0.00%	0.06%
10.0	916.367	62.315	81.771	0.00%	0.25%
15.0	1084.406	118.685	200.456	0.00%	0.62%
20.0	1300.687	196.565	397.021	0.00%	1.22%
25.0	1534.314	297.339	694.36	0.00%	2.14%
30.0	1769.939	418.156	1112.516	0.00%	3.42%
35.0	2006.384	556.090	1668.606	0.00%	5.13%
40.0	2222.281	705.521	2374.127	0.00%	7.30%
45.0	2429.035	861.229	3235.356	0.00%	9.95%
50.0	2607.765	1017.759	4253.115	0.00%	13.08%
55.0	2747.435	1164.399	5417.513	0.00%	16.66%
60.0	2861.927	1296.588	6714.102	0.00%	20.65%
65.0	2963.782	1416.241	8130.342	0.00%	25.01%
70.0	3070.665	1527.961	9658.303	0.00%	29.70%
75.0	3171.621	1631.633	11289.937	0.00%	34.72%
80.0	3246.074	1717.197	13007.133	0.00%	40.00%
85.0	3275.593	1772.093	14779.227	0.00%	45.45%
90.0	3277.591	1794.313	16573.54	0.00%	50.97%
95.0	3279.497	1795.382	18368.922	0.00%	56.49%
100.0	3274.178	1780.790	20149.713	0.00%	61.97%
105.0	3249.038	1745.431	21895.143	0.00%	67.34%
110.0	3179.136	1680.222	23575.365	0.00%	72.51%
115.0	3073.418	1583.187	25158.552	0.00%	77.38%
120.0	2920.767	1457.198	26615.749	0.00%	81.86%
125.0	2722.785	1304.491	27920.24	0.00%	85.87%
130.0	2505.565	1136.817	29057.058	0.00%	89.37%
135.0	2267.347	964.437	30021.495	0.00%	92.33%
140.0	2001.343	790.383	30811.877	0.00%	94.76%
145.0	1703.517	618.128	31430.005	0.00%	96.66%
150.0	1384.667	454.757	31884.762	0.00%	98.06%
155.0	1048.589	307.931	32192.692	0.00%	99.01%
160.0	718.254	185.309	32378.001	0.00%	99.58%
165.0	419.581	93.774	32471.775	0.00%	99.87%
170.0	173.768	35.197	32506.972	0.00%	99.98%
175.0	31.319	7.337	32514.309	0.00%	100.00%
180.0	8.680	0.478	32514.787	0.00%	100.00%

Luminous Intensity Distribution Diagram

Light Distribution Curve [Unit:cd]





C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:166.1 Right:167.0

:C90/270Left:165.9 Right:167.9

Beam Angle(50%Imax):C0/180Left:145.5 Right:145.6

:C90/270Left:144.4 Right:146.5

Luminous Intensity Distribution Data

C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	801.90	815.48	895.08	1059.57	1270.64	1495.47	1728.97	1958.88	2171.22
22.5	801.90	815.69	895.29	1077.35	1292.87	1534.63	1770.89	2006.09	2219.07
45.0	801.90	819.92	900.16	1070.37	1281.65	1506.69	1743.37	1986.19	2201.71
67.5	801.90	820.56	916.25	1082.01	1291.60	1529.97	1766.66	2001.86	2213.35
90.0	801.90	827.55	914.34	1066.35	1277.84	1519.60	1766.23	2010.96	2237.06
112.5	801.90	831.36	917.73	1075.24	1278.26	1519.39	1761.79	2000.80	2211.66
135.0	801.90	825.01	926.62	1090.27	1304.51	1529.13	1764.54	2001.86	2222.03
157.5	801.90	838.98	927.05	1097.25	1316.15	1541.83	1782.75	2017.74	2238.33
180.0	801.90	836.23	929.59	1105.93	1321.87	1547.97	1785.92	2023.45	2256.11
202.5	801.90	834.96	930.64	1100.22	1322.93	1566.39	1795.24	2032.98	2253.15
225.0	801.90	831.78	931.49	1102.12	1326.10	1563.64	1791.64	2033.19	2260.56
247.5	801.90	830.51	916.88	1083.49	1296.04	1536.11	1777.45	2006.94	2225.21
270.0	801.90	835.38	940.59	1119.91	1356.59	1590.31	1809.21	2041.66	2235.58
292.5	801.90	819.92	920.27	1091.96	1318.91	1545.85	1777.24	2004.61	2212.29
315.0	801.90	814.00	904.82	1070.58	1289.06	1522.78	1762.42	2002.92	2218.22
337.5	801.90	812.09	895.08	1057.88	1265.98	1499.28	1734.69	1972.01	2180.96
360.0	801.90	815.48	895.08	1059.57	1270.64	1495.47	1728.97	1958.88	2171.22

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	2388.64	2589.33	2737.95	2856.71	2965.32	3077.52	3192.69	3278.00	3312.93
22.5	2436.70	2605.42	2750.86	2868.36	2968.07	3069.90	3171.52	3246.03	3275.88
45.0	2405.58	2600.77	2753.61	2873.86	2982.25	3096.57	3196.71	3277.16	3316.96
67.5	2422.94	2595.05	2732.23	2848.67	2942.67	3047.25	3142.94	3206.45	3232.49
90.0	2446.01	2632.31	2776.06	2893.34	3001.94	3110.97	3218.94	3305.10	3340.24
112.5	2429.50	2595.26	2728.21	2849.73	2950.07	3047.25	3141.03	3215.55	3238.41
135.0	2418.49	2604.15	2744.94	2861.16	2972.94	3087.47	3184.43	3261.91	3298.54
157.5	2446.65	2607.54	2742.39	2842.11	2932.93	3029.67	3126.42	3194.80	3214.49
180.0	2451.52	2646.07	2778.60	2891.43	2990.30	3113.51	3213.22	3292.61	3322.88
202.5	2460.41	2629.13	2752.13	2864.55	2957.91	3056.56	3153.94	3225.08	3248.58
225.0	2462.31	2638.03	2773.51	2878.94	2992.84	3096.36	3195.86	3275.88	3311.66
247.5	2431.62	2594.84	2728.21	2838.72	2944.15	3038.78	3141.67	3217.24	3244.55
270.0	2437.33	2616.43	2750.86	2860.31	2965.32	3075.83	3176.81	3237.78	3261.91
292.5	2421.03	2589.12	2731.17	2849.52	2943.51	3047.88	3146.11	3210.05	3230.58
315.0	2416.80	2610.29	2760.81	2876.83	2980.56	3098.05	3203.06	3280.12	3315.47
337.5	2389.06	2570.49	2717.41	2836.60	2929.75	3037.08	3140.61	3213.43	3243.92
360.0	2388.64	2589.33	2737.95	2856.71	2965.32	3077.52	3192.69	3278.00	3312.93

C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	3309.33	3307.22	3299.38	3268.90	3197.77	3085.35	2928.48	2723.76	2507.19
22.5	3271.44	3266.57	3258.53	3249.85	3184.22	3072.44	2916.84	2723.55	2518.84
45.0	3316.96	3311.87	3300.87	3271.65	3189.51	3078.58	2918.74	2712.12	2487.50
67.5	3227.62	3229.73	3221.05	3201.79	3125.58	3012.32	2855.23	2662.79	2452.57
90.0	3359.51	3359.72	3358.03	3327.33	3264.24	3160.93	3016.55	2819.24	2589.97
112.5	3243.07	3247.31	3238.84	3219.57	3167.49	3073.07	2926.36	2741.12	2535.77
135.0	3306.16	3309.76	3309.55	3274.19	3202.42	3097.84	2946.48	2742.82	2519.68
157.5	3213.01	3219.36	3211.95	3184.22	3128.96	3037.30	2880.64	2690.74	2484.33
180.0	3323.31	3327.54	3326.91	3298.11	3213.64	3121.34	2961.08	2750.23	2526.67
202.5	3249.63	3254.50	3252.17	3230.58	3165.38	3066.72	2921.50	2724.61	2508.89
225.0	3320.13	3326.69	3320.98	3289.65	3218.09	3112.45	2976.96	2762.93	2532.17
247.5	3252.39	3256.83	3248.36	3228.04	3169.82	3076.46	2929.96	2745.57	2537.04
270.0	3261.91	3265.72	3265.30	3234.39	3153.10	3033.91	2872.17	2673.17	2443.89
292.5	3231.43	3228.25	3224.86	3203.48	3129.60	3018.24	2863.28	2667.03	2447.70
315.0	3316.32	3320.98	3317.17	3289.43	3211.32	3098.27	2939.91	2735.83	2512.27
337.5	3239.26	3239.90	3232.91	3213.43	3145.05	3029.46	2878.10	2689.05	2484.54
360.0	3309.33	3307.22	3299.38	3268.90	3197.77	3085.35	2928.48	2723.76	2507.19

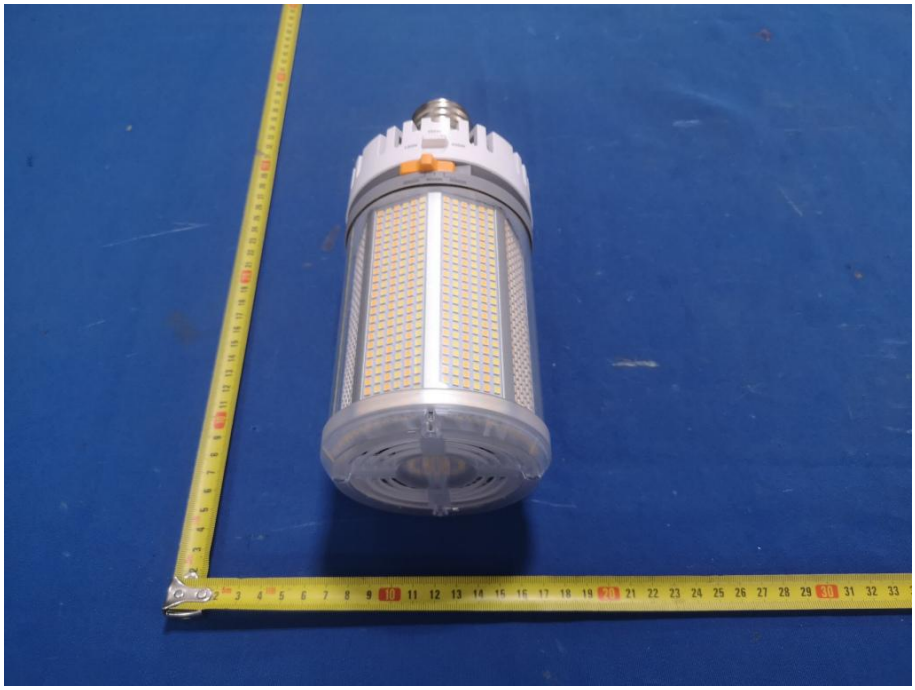
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	2278.34	2009.69	1701.67	1398.51	1064.86	740.11	439.92	172.96	21.81
22.5	2296.34	2026.63	1745.49	1420.74	1086.46	748.58	453.68	179.52	13.34
45.0	2253.36	1977.51	1679.01	1363.36	1035.01	720.21	421.92	177.62	11.43
67.5	2218.22	1963.33	1670.54	1350.24	1019.14	697.98	404.14	165.55	12.28
90.0	2342.28	2080.19	1776.40	1461.17	1118.21	782.88	481.41	233.30	40.65
112.5	2289.99	2021.76	1741.47	1416.50	1079.05	742.65	442.88	208.74	28.16
135.0	2274.53	2000.80	1696.37	1374.16	1035.23	705.18	411.97	184.18	24.98
157.5	2234.52	1973.28	1679.22	1369.29	1032.05	694.60	390.17	170.42	26.04
180.0	2277.71	2006.09	1697.22	1370.77	1035.23	697.56	388.47	142.90	29.85
202.5	2270.93	2008.63	1706.53	1381.78	1036.07	703.91	393.77	114.74	46.36
225.0	2281.31	2024.72	1709.29	1393.00	1050.89	730.80	427.64	148.62	43.82
247.5	2294.01	2028.11	1744.43	1423.06	1085.61	743.71	438.44	194.77	48.06
270.0	2211.44	1942.37	1640.69	1332.24	994.37	661.99	372.60	157.72	34.93
292.5	2226.48	1965.02	1677.95	1352.36	1013.63	679.78	398.64	168.94	44.03
315.0	2275.17	2000.80	1688.75	1366.12	1034.59	708.15	414.09	176.14	42.13
337.5	2252.94	1992.54	1701.24	1381.36	1057.03	733.97	433.57	184.18	33.24
360.0	2278.34	2009.69	1701.67	1398.51	1064.86	740.11	439.92	172.96	21.81

C/γ(°)	180.0
0.0	8.68
22.5	8.68
45.0	8.68
67.5	8.68
90.0	8.68
112.5	8.68
135.0	8.68
157.5	8.68
180.0	8.68
202.5	8.68
225.0	8.68
247.5	8.68
270.0	8.68
292.5	8.68
315.0	8.68
337.5	8.68
360.0	8.68

4 Additional Test

Model Number	CCT(K)	Test Voltage (V)	Frequency (Hz)	Power Factor	THD
HIDFA-205S-EX39-8CCT-BYP	3000	120	60	0.994	9.8%
		277	60	0.917	12.4%
	4000	277	60	0.915	12.2%
	5000	277	60	0.916	11.9%

Photo Document



****End of test report****