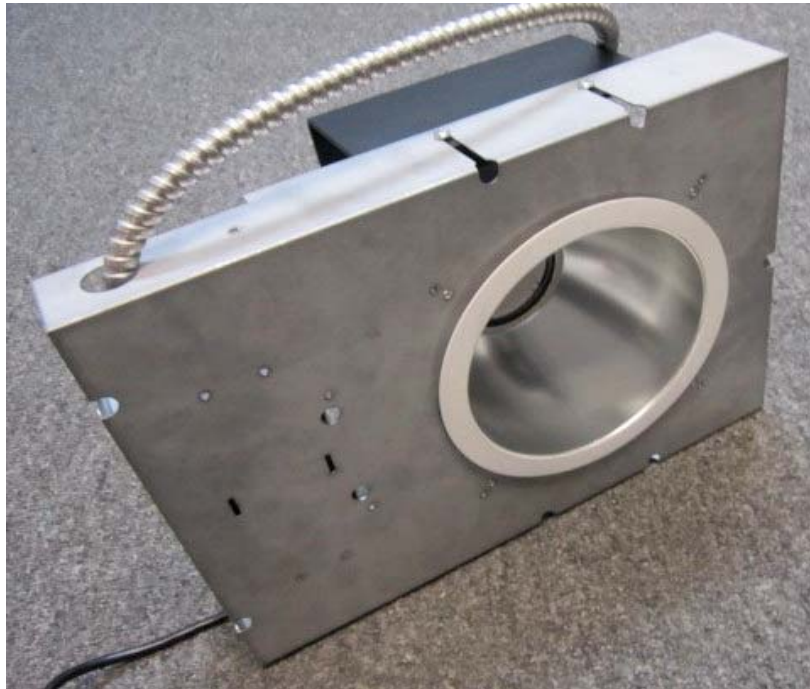


Report of Test LLI-17113-7

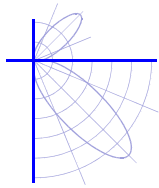
Vantage Lighting - 6" downlight luminaire. Product ID: A6VOFLEDU-2035K-M6060SCL
Unpainted formed steel housing with specular reflector and no lens.
36 LEDs in circular array mounted in plastic housing with flat white plastic lens.
Philips Advance Xitanium LED driver. Model: XI025C070V054DSM1 set to 625mA.
Operating at 120 VAC and 60 Hz



Performance Summary

Total Light Output	1921 lm	Min Power Factor	0.97 @ 277 V
Luminaire Power	25.8 W	Max THD(i)*	5.9 % @ 277 V
Luminous Efficacy	74.5 lm/W		
CCT	3460 K		
CIE(x,y) 1931	(0.408, 0.395)		
CRI	85		

PREPARED FOR : Lexington Lighting Group, East Providence, RI



Test Report No. LLI-17113-7

Vantage Lighting - 6" downlight luminaire. Product ID: A6VOFLEDU-2035K-M6060SCL

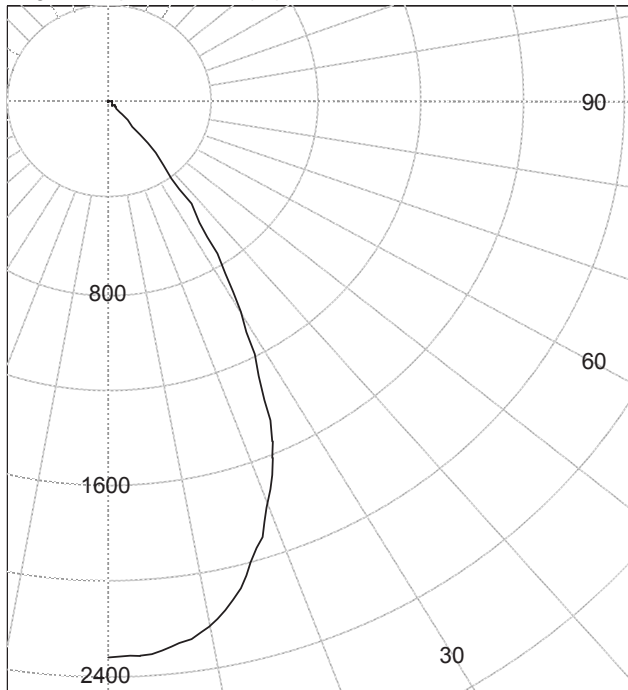
Unpainted formed steel housing with specular reflector and no lens.

36 LEDs in circular array mounted in plastic housing with flat white plastic lens.

Philips Advance Xitanium LED driver. Model: XI025C070V054DSM1 set to 625mA.

Operating at 120 VAC and 60 Hz

Legend: All planes - Solid (cd)



(Rotational symmetry)

INTENSITY SUMMARY (cd)

Gamma	All Planes	Flux (lm)	Gamma	C0	Flux (lm)
0	2322		90	0	
5	2302	217	95	0	0
10	2223		100	0	
15	2050	570	105	0	0
20	1796		110	0	
25	1467	655	115	0	0
30	1010		120	0	
35	602	377	125	0	0
40	275		130	0	
45	76	76	135	0	0
50	25		140	0	
55	16	15	145	0	0
60	10		150	0	
65	7	7	155	0	0
70	5		160	0	
75	3	3	165	0	0
80	2		170	0	
85	1	1	175	0	0
90	0		180	0	

ZONAL FLUX AND PERCENTAGES

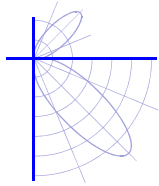
Zone	Flux (lm)	%Lamp	%Luminaire
0-30	1442	N / A	75.1
0-40	1819	N / A	94.7
0-60	1910	N / A	99.4
0-90	1921	N / A	100.0
40-90	102	N / A	5.3
60-90	11	N / A	0.6
90-180	0	N / A	0.0
0-180	1921	N / A	100.0

Total Light Output = 1,921 lm

Signed:

Ryder Tunney
Ryder Tunney
Authorized Signatory

Date of test 5-May-2017
Date of report 19-May-2017



Test Report No. LLI-17113-7

Vantage Lighting - 6" downlight luminaire. Product ID: A6VOFLEDU-2035K-M6060SCL

Unpainted formed steel housing with specular reflector and no lens.

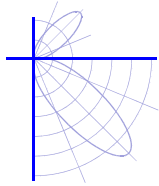
36 LEDs in circular array mounted in plastic housing with flat white plastic lens.

Philips Advance Xitanium LED driver. Model: XI025C070V054DSM1 set to 625mA.

Operating at 120 VAC and 60 Hz

Intensity (cd) and Flux (lm) data

Gamma	Intensity	Flux	Gamma	Intensity	Flux
0.0	2322		90.0	0	
2.5	2318		92.5	0	
5.0	2302	217	95.0	0	
7.5	2270		97.5	0	0
10.0	2223		100.0	0	
12.5	2149		102.5	0	
15.0	2050	570	105.0	0	
17.5	1929		107.5	0	0
20.0	1796		110.0	0	
22.5	1647		112.5	0	
25.0	1467	655	115.0	0	
27.5	1235		117.5	0	0
30.0	1010		120.0	0	
32.5	797		122.5	0	
35.0	602	377	125.0	0	
37.5	426		127.5	0	0
40.0	275		130.0	0	
42.5	156		132.5	0	
45.0	76	76	135.0	0	
47.5	35		137.5	0	0
50.0	25		140.0	0	
52.5	20		142.5	0	
55.0	16	15	145.0	0	
57.5	13		147.5	0	0
60.0	10		150.0	0	
62.5	9		152.5	0	
65.0	7	7	155.0	0	
67.5	6		157.5	0	0
70.0	5		160.0	0	
72.5	4		162.5	0	
75.0	3	3	165.0	0	
77.5	2		167.5	0	0
80.0	2		170.0	0	
82.5	1		172.5	0	
85.0	1	1	175.0	0	
87.5	0		177.5	0	0
90.0	0		180.0	0	



Test Report No. LLI-17113-7

Vantage Lighting - 6" downlight luminaire. Product ID: A6VOFLEDU-2035K-M6060SCL

Unpainted formed steel housing with specular reflector and no lens.

36 LEDs in circular array mounted in plastic housing with flat white plastic lens.

Philips Advance Xitanium LED driver. Model: XI025C070V054DSM1 set to 625mA.

Operating at 120 VAC and 60 Hz

LM-79 Performance Data

Spectral	CIE 1931 (x, y) ⁽¹⁾	(0.408, 0.395)
	CIE 1976 (u', v') ⁽¹⁾	(0.236, 0.513)
	Correlated Color Temperature (CCT) ⁽¹⁾	3460 K
	Spatial Δ (u', v') Uniformity ⁽²⁾	0.0014
	Color Rendering Index (Ra) ⁽¹⁾	84.6
	Special CRI 9 (R ₉) ^{(1),(3)}	16.5
	Distance from Planckian Locus (Duv) ^{(1),(3)}	0.0010
	Scotopic/Photopic Ratio ^{(1),(3)}	1.55

Electrical	Voltage	120.0 V	(Setpoint 1)
	Frequency	60.0 Hz	
	Current	0.216 A	
	Power	25.8 W	
	Power Factor	0.992	
	Current THD	2.5 %	
	Voltage	277.0 V	(Setpoint 2)
	Frequency	60.0 Hz	
	Current	0.096 A	
	Power	25.8 W	
	Power Factor	0.973	
	Current THD	5.9 %	

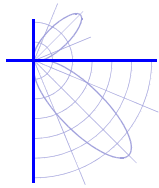
Performance data in accordance with IESNA LM-79-08. Spectral calculations are for a CIE 2° observer

Photometric and spectral values were measured at Setpoint 1

(1) Value is computed from the weighted average of the spatial measurements

(2) Value is the maximum deviation of the spatial u' and v' measurements from the weighted average

(3) Quantity is in addition to the scope of IESNA LM-79-08



Test Report No. LLI-17113-7

Vantage Lighting - 6" downlight luminaire. Product ID: A6VOFLEDU-2035K-M6060SCL

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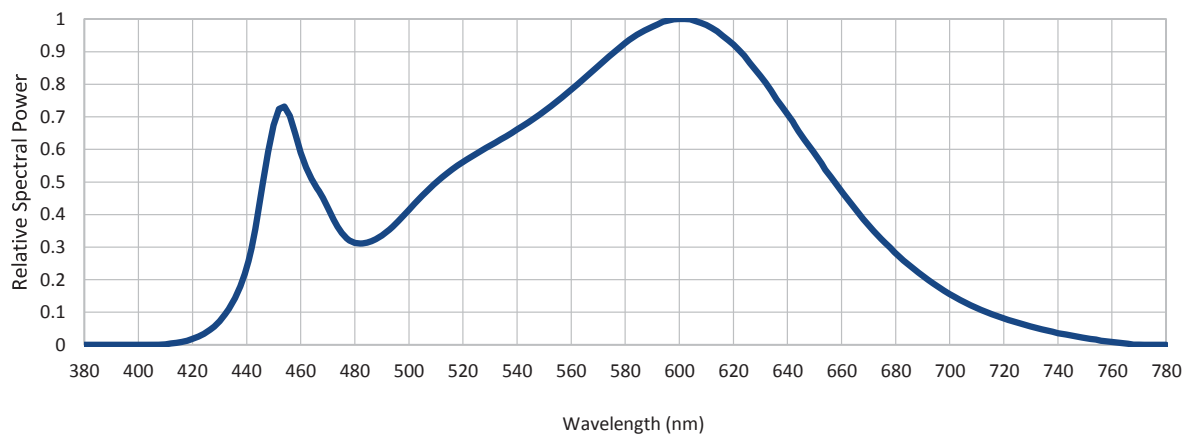
Philips Advance Xitanium LED driver. Model: XI025C070V054DSM1 set to 625mA.

Operating at 120 VAC and 60 Hz

LM-79 Performance Data

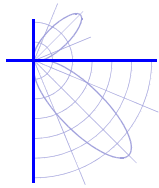
Summary relative spectral irradiance distribution (wavelength – nm, irradiance – relative to peak = 1)

380	0.000	480	0.313	580	0.926	680	0.281
385	0.000	485	0.315	585	0.955	685	0.245
390	0.000	490	0.336	590	0.976	690	0.211
395	0.000	495	0.371	595	0.994	695	0.183
400	0.000	500	0.415	600	1.000	700	0.156
405	0.000	505	0.458	605	0.996	705	0.133
410	0.002	510	0.498	610	0.982	710	0.113
415	0.008	515	0.532	615	0.955	715	0.096
420	0.019	520	0.561	620	0.922	720	0.081
425	0.039	525	0.587	625	0.876	725	0.068
430	0.073	530	0.611	630	0.825	730	0.057
435	0.134	535	0.636	635	0.767	735	0.046
440	0.239	540	0.661	640	0.708	740	0.036
445	0.443	545	0.688	645	0.646	745	0.028
450	0.674	550	0.717	650	0.588	750	0.021
455	0.717	555	0.749	655	0.527	755	0.015
460	0.590	560	0.783	660	0.473	760	0.009
465	0.496	565	0.819	665	0.417	765	0.004
470	0.423	570	0.855	670	0.367	770	0.001
475	0.346	575	0.892	675	0.323	775	0.000
						780	0.000



The relative spectral power distribution combines the weighted spectral power distributions of all spatial measurements.

RT



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36 LEDs in circular array mounted in plastic housing with flat white plastic lens.

Philips Advance Xitanium LED driver. Model: XI025C070V054DSM1 set to 625mA.

Operating at 120 VAC and 60 Hz

LM-79 Performance Data

Spatial measurements

Vert. angle (°)	CIE 1976 (u',v') coordinates	
	Horiz. 0° plane	Horiz. 90° plane
0.0	(0.237, 0.514)	(0.237, 0.514)
5.0	(0.237, 0.514)	(0.237, 0.514)
10.0	(0.237, 0.513)	(0.237, 0.514)
15.0	(0.236, 0.513)	(0.237, 0.513)
20.0	(0.236, 0.513)	(0.236, 0.513)
25.0	(0.236, 0.513)	(0.236, 0.513)
30.0	(0.236, 0.513)	(0.236, 0.513)
35.0	(0.236, 0.513)	(0.236, 0.513)
40.0	(0.235, 0.513)	(0.235, 0.513)
45.0	I <= 10% peak	I <= 10% peak

Spatial measurements

Vert. angle (°)	CIE 1976 (u',v') coordinates	
	Horiz. 0° plane	Horiz. 90° plane
45.0	I <= 10% peak	I <= 10% peak
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

Test procedure

All measurements were performed in an environmentally controlled laboratory employing suitable baffling to minimize stray light. The sample was mounted in its normal operating orientation on a rotating mirror goniophotometer and operated from a stabilized supply. The photometric output was monitored and measurements were performed once stability was achieved.

The goniophotometer was used to measure the spatial distribution of both luminous intensity and, in conjunction with a spectroradiometer, spectral irradiance. The distribution locus comprises points in two or more planes (as indicated in the table above) at no more than 10° vertical intervals. The CIE (x,y) coordinates and other derived metrics (CIE (u', v'), CCT and CRI) are calculated from the weighted sum (weighted for intensity and represented solid angle) of the measured spectral irradiances.

Sample Orientation

Horizontal

Stabilization & total operation time 4.0 / 5.0 hours

Equipment and uncertainties

LightLab International R80A C-gamma rotating mirror goniophotometer with a test distance of 8 m.

Luminous Intensity ± 4 %
Luminous Flux ± 4 %
Horiz., Vert. Angles ± 0.25°

Temperature ± 1 °C
Luminous Efficacy ± 4.5 %

PhotoResearch PR-670 spectroradiometer (grating with 380 - 780 nm range, 2 nm / pixel, 5 nm bandwidth, incandescent/halogen calibration source). Measured at a distance from the sample deemed >5 times the maximum observed luminous opening dimension.

CIE (x, y) coordinates ± 0.003 CCT ± 100 K
CIE (u', v') coordinates ± 0.002 CRI (Ra) ± 2
Spatial Δ (u', v') uniformity ± 0.001 Scotopic / Photopic Ratio * ± 0.02
Rel. Spectral Irradiance * ± 2 % R9 * ± 2
Duv * ± 5E-04

Yokogawa WT210 power meter connected in circuit to the sample electrical supply

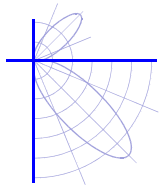
Voltage ± 0.5 % Frequency * ± 0.1 Hz
Current ± 0.5 % Power ± 0.5 %
Current THD * ± 3 % Power Factor ± 0.02

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Calculator / report version 1.0.7 / 5.7 (30th Jan 2017)

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RT



Test Report No. LLI-17113-7

Vantage Lighting - 6" downlight luminaire. Product ID: A6VOFLEDU-2035K-M6060SCL

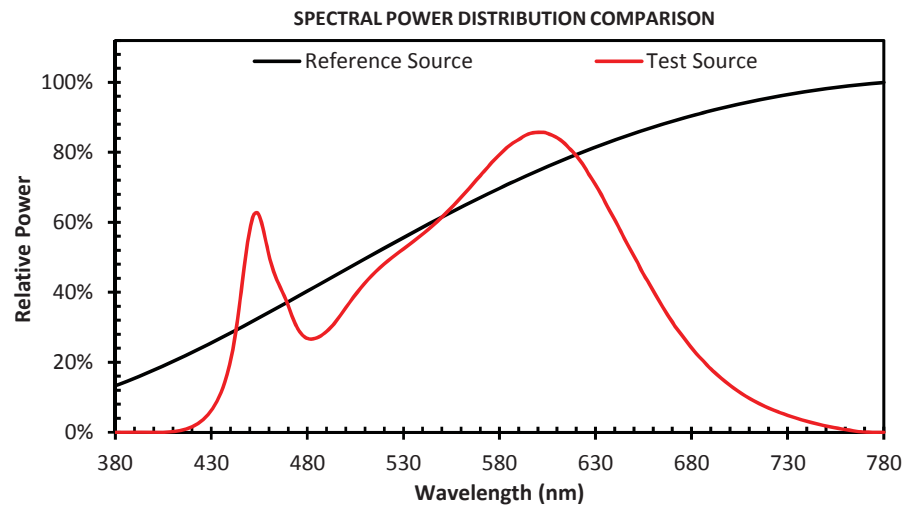
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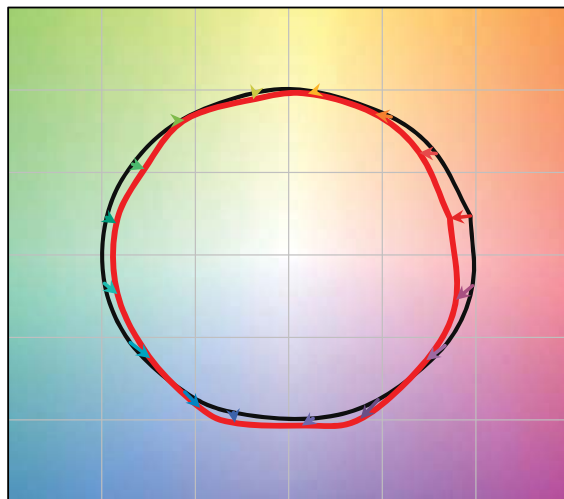
Philips Advance Xitanium LED driver. Model: XI025C070V054DSM1 set to 625mA.

Operating at 120 VAC and 60 Hz

R_f	83
R_g	94



COLOR VECTOR GRAPHIC

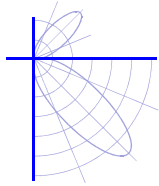


— Reference Illuminant — Test Source

COLOR DISTORTION GRAPHIC



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Operating at 120 VAC and 60 Hz

Test Distance 8.0 m
Test Temperature 24.7 °C

Notes The laboratory has not participated in the selection of samples to be tested. All testing is performed on the understanding that the significance of the report is limited to the extent that the test sample is representative of production units.

Tested in accordance with the applicable sections of publications: IES LM-79-08 (Sec. 12), IES LM-16-93, IES LM-58-13, CIE 13.3:1995, CIE 15:2004, ANSI C78.377:2011, ANSI C82.77:2002.

The luminous intensity values, and other derived quantities, contained in this report are based on the absolute data, as measured.

Prorating the performance of the sample for the use of other component combinations (such as lamp / LED / Ballast / driver), or for use in different environmental conditions than that tested, may produce erroneous results.

This report is free of erasures and corrections.

Photometric intensity values are reported using the CIE Gamma coordinate system as defined in CIE publication number 121.

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This report must not be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST, or any agency of the Federal Government.