

Report of Test

LLIA001042-001

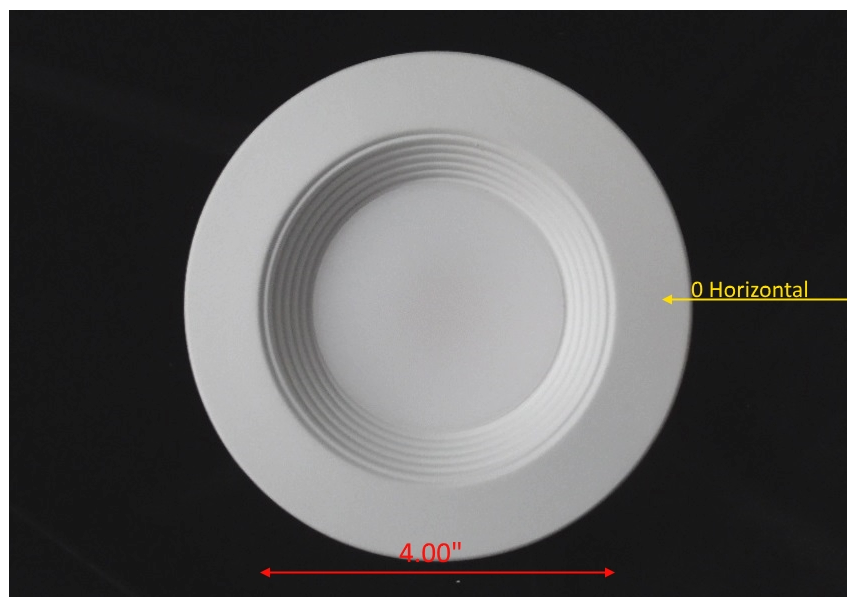
Catalog Number: RTL/423WH/6W/D-46

LED indoor recessed downlight, formed white aluminum housing, white reflector, translucent white plastic enclosure.

23 white LEDs, one LDB-10 E347474 LED board.

One LED18118B LED driver.

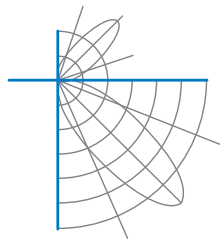
120.0Vac, 60.00Hz, 0.0602A, 6.77W, 0.937PF, 22.6%THD(i)



Performance Summary

Total Light Output	645 lm
Luminaire Power	6.77 W
Luminous Efficacy	95.3 lm/W

PREPARED FOR : Topaz Lighting Corp, 925 Waverly Avenue, Holtsville, NY 11742, USA



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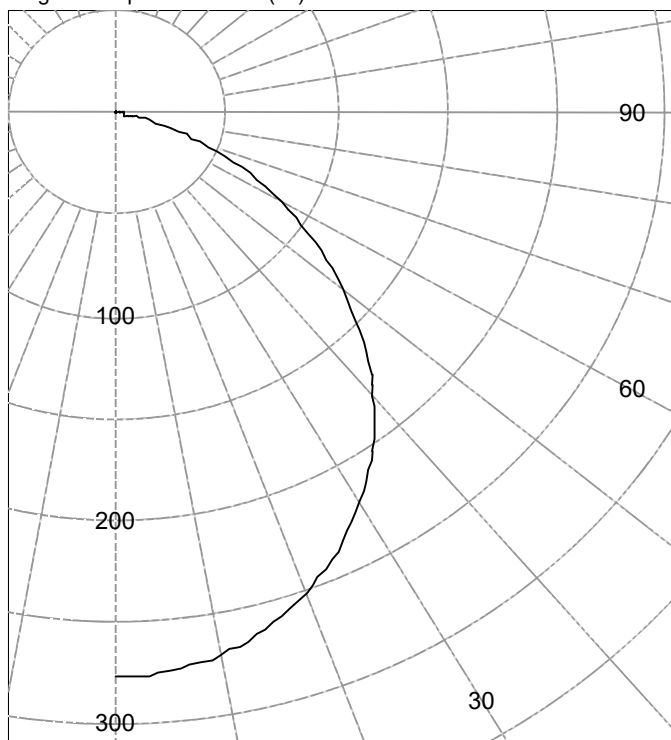
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Legend: All planes - Black (cd)



(Rotational symmetry)

AVERAGE LUMINANCE (cd / m²)

Gamma	C0
45.0	27358
55.0	23409
65.0	18166
75.0	10180
85.0	4570

INTENSITY SUMMARY (cd)

Gamma	All Planes	Flux (lm)	Gamma	C0	Flux (lm)
0	277		90	0	
5	275	26	95	0	0
10	271		100	0	
15	263	74	105	0	0
20	251		110	0	
25	237	109	115	0	0
30	221		120	0	
35	202	126	125	0	0
40	181		130	0	
45	158	122	135	0	0
50	134		140	0	
55	110	98	145	0	0
60	86		150	0	
65	63	62	155	0	0
70	41		160	0	
75	22	24	165	0	0
80	8		170	0	
85	3	4	175	0	0
90	0		180	0	

ZONAL FLUX AND PERCENTAGES

Zone	Flux (lm)	%Lamp	%Luminaire
0-30	209	N / A	32.4
0-40	335	N / A	52.0
0-60	555	N / A	86.1
0-90	645	N / A	100.0
40-90	309	N / A	48.0
60-90	90	N / A	13.9
90-180	0	N / A	0.0
0-180	645	N / A	100.0

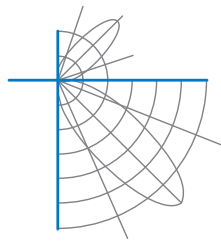
Total Light Output = 645 lm

Spacing Criterion: 0-180 1.2
Spacing Criterion: 90-270 1.2

Signed:

Authorized Signatory

Date of test 24-Oct-2018
Date of report 24-Oct-2018



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LED indoor recessed downlight, formed white aluminum housing, white reflector, translucent white plastic enclosure.

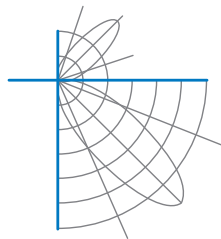
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Intensity (cd) and Flux (lm) data

Gamma	Intensity	Flux	Gamma	Intensity	Flux
0.0	277		90.0	0	
2.5	277		92.5	0	
5.0	275	26	95.0	0	0
7.5	273		97.5	0	
10.0	271		100.0	0	
12.5	267		102.5	0	
15.0	263	74	105.0	0	0
17.5	257		107.5	0	
20.0	251		110.0	0	
22.5	244		112.5	0	
25.0	237	109	115.0	0	0
27.5	229		117.5	0	
30.0	221		120.0	0	
32.5	212		122.5	0	
35.0	202	126	125.0	0	0
37.5	192		127.5	0	
40.0	181		130.0	0	
42.5	170		132.5	0	
45.0	158	122	135.0	0	0
47.5	146		137.5	0	
50.0	134		140.0	0	
52.5	122		142.5	0	
55.0	110	98	145.0	0	0
57.5	98		147.5	0	
60.0	86		150.0	0	
62.5	74		152.5	0	
65.0	63	62	155.0	0	0
67.5	52		157.5	0	
70.0	41		160.0	0	
72.5	31		162.5	0	
75.0	22	24	165.0	0	0
77.5	14		167.5	0	
80.0	8		170.0	0	
82.5	6		172.5	0	
85.0	3	4	175.0	0	0
87.5	1		177.5	0	
90.0	0		180.0	0	



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Coefficients Of Utilization - Zonal Cavity Method

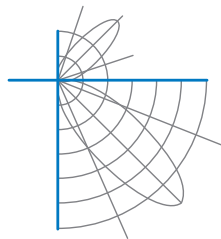
Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87
2	101	94	88	82	99	92	86	81	88	84	80	85	81	78	82	79	76	74
3	93	83	76	70	90	82	75	69	79	73	68	76	71	67	73	69	66	64
4	85	74	66	60	83	73	65	59	71	64	59	68	62	58	66	61	57	55
5	79	67	58	52	77	66	58	52	64	57	51	62	56	51	60	54	50	48
6	73	60	52	46	71	59	51	46	58	51	45	56	50	45	55	49	44	43
7	68	55	47	41	66	54	46	41	53	46	40	51	45	40	50	44	40	38
8	63	50	42	37	62	50	42	36	48	41	36	47	41	36	46	40	36	34
9	59	46	38	33	58	46	38	33	45	38	33	44	37	33	43	37	32	31
10	56	43	35	30	54	42	35	30	41	35	30	40	34	30	40	34	30	28

For absolute test reports, CUs are expressed as a percentage of total lumen output. Calculations were based on published IES procedures, and are based on the zonal cavity method. Basic assumptions: 1) Room surfaces are lambertian reflectors. 2) Incident flux on each surface is uniformly distributed. 3) The room is spectrally neutral. When luminaires are not evenly distributed throughout the room, or do not exhibit lateral symmetry, CU values may differ from actual performance.

Circle of Light Plot

Height(ft)	Illuminance at Nadir (fc)	Beam Width (across 50% Nadir Illum)	
		0-180	90-270
6.0	7.7	7.14	7.14
8.0	4.3	9.52	9.52
10.0	2.8	11.90	11.90
12.0	1.9	14.27	14.27
14.0	1.4	16.65	16.65
16.0	1.1	19.03	19.03



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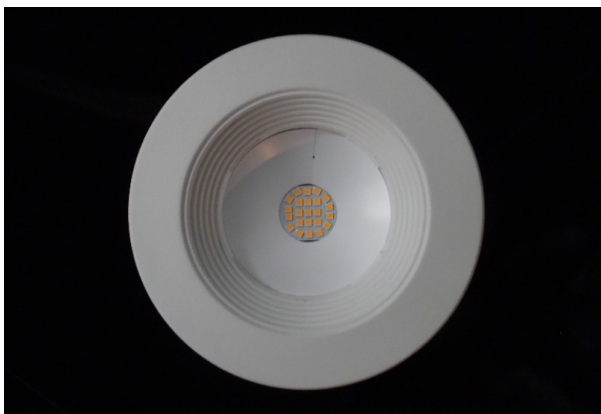
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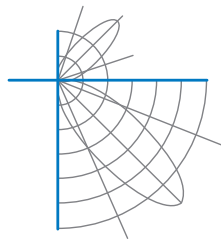
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Test Distance 9.5 m
Test Temperature 24.8 °C

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 C78.377:2015, ANSI C82.77-10:2014.

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.

This report may contain data that are not covered by the NVLAP accreditation. Quantities marked with * are not covered.

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