

# HVJ5-LED 5" ARCHITECTURAL LED RETROFIT DOWNLIGHT



INPUT VOLT.	INPUT FREQ.	INPUT CUR.	THD	POWER FACTOR	INPUT POWER	LUMENS
120/277	50/60Hz	283mA/122mA	<20%	>0.9	34W(+/-5%)	1500
120/277	50/60Hz	180mA/76mA	<20%	>0.9	21W(+/-5%)	1100
120/277	50/60Hz	133mA/57mA	<20%	>0.9	16W(+/-5%)	800

**DESCRIPTION** - 5" LED dedicated Architectural Retrofit Downlight with integral LED heat management casting and driver. Available in 800 lumens, 1100 & 1500 lumens. Lighting is smooth and comfortable while using 50% less energy than the common 26W & 32W CFL downlight. Plus the eco-friendly MAXILUME LED system features 70% lumen maintenance at 50,000hrs of life, with California Title-24 (compliances pending). Designed to install into an existing downlights mounting frame and convert them into energy efficient LED downlights to save anywhere from 35% up to 75% on energy cost. Fits all downlights with 5-1/2" aperture. Custom size and aperture, LED retrofit and reflectors are available, please consult factory for further details.

**FEATURES** - Greater light output than a 26W & 32W CFL. MAXILUME LED luminaires are ideally suited for use in hospitality, health care, commercial, academic institutions, retail and other architectural applications.



**OPTICS** - MAXILUME LED Optilux technology combines unmatched performance with visual comfort. Spun 0.05" thick reflector has been designed to gather the light scattered by the LED chip and shape it into functional beams that minimize brightness and glare, while eliminating lamp image. Proprietary dual level upper and lower reflector design allows for optimum glare control. Elite engineered superior quality, light engine; producing 800 lumens, 1100 lumens & 1500 lumens.

**PERFORMANCE** - Operating system delivers 800, 1100 & 1500 lumens. All MAXILUME LED luminaires are rated at 85+, 90+ and 98+ CRI, and are binned to within 3 MacAdam ellipses. Elite's highly selective LED chips produce zero ultraviolet and virtually no infrared light. All LED luminaires are rated and tested to LM-79 and LM-80 standards by an independent laboratory.

**THERMAL MANAGEMENT SYSTEM** - Using a proprietary coolLED Advanced Thermodynamic Design, Die-cast aluminum housing and heat management system are engineered for extremely long life and service period. Heat sink is attached to top of housing. The LED light engine is attached to the die-cast heat sink and is easily replaceable and upgradable. Life tests have shown the MAXILUME light engine output will be maintained at 70% of initial at 50,000hrs of operation.

**DIMMABLE** - The MAXILUME LED system is shipped standard with a 0-10V driver which can be dimmed down to 1% of initial light output with a 0-10V dimmer when ordered with the following options (DIM10-120, DIM10-277). Fixtures can also be shipped with a Lutron Hi-lume A series driver which can be dimmed with Lutron Dimming Systems when ordered with the following options (LUTH-120, LUTH-277), or EldoLed 0-10V 1% Dimming, consult factory for other EldoLed driver and other driver options. Triac & Electronic Low Voltage dimming driver also available when ordered with the following options (DIMTR-120). All fixtures with 3000L and below are dimmable down to 1% and the fixtures with 4000L and above can be dimmed down to 10%.

**LED DRIVER/JUNCTION BOX** - The LED driver is rated for 50 to 60Hz at 120V /277V input, produces less than 20%THD, and has a power factor between 90% and 100% and is thermally protected for additional safety. MAXILUME's LED driver is installed on the junction box cover so it may be serviced from below the ceiling. UL Listed for through-branch circuit wiring, provided with four 1/2" knockouts, one 3/4" knockout and four Romex knockouts with true pryout slots and strain clamps. Designed for straight through conduit runs.

**MOUNTING** - Our retrofit is designed to install into an existing downlights mounting frame and convert them into energy efficient LED downlights. Flex is designed to attach into existing junction box.

**INSTALLATION** - The installation time is less than 10 minutes.

**OUR WORD** - The MAXILUME LED lighting system carries a five-year carefree warranty for parts and components. (Labor not included.)

## DIMMING INFORMATION

**DIM10** (0-10V 1% Dimming)

**LUTH** (Lutron® Hi-Lume A-Series 3-Wire or Eco System 1% Dimming up to 4000 lumens only)

**ELDO10** (EldoLed 0-10V 1% Dimming up to 3000 lumens only, consult factory for the EldoLed driver options)

**DIMTR** (Triac & Electronic Low Voltage Dimming)

LED Driver options:



Example: HVJ5-LED-1100L-DIM10-120-MD-30K-LED-5101-CL-WH

TYPE	800L SERIES	1100L SERIES	1500L SERIES	VOLTAGE	OPTICS	CCT	CRI	EMERGENCY	TRIM TYPE		REFLECTOR/RING FINISH	DISC
HVJ5-LED	<input type="checkbox"/> 800L-DIMTR* <input type="checkbox"/> 800L-LUTH <input type="checkbox"/> 800L-DIM10 <input type="checkbox"/> 800L-ELDO10	<input type="checkbox"/> 1100L-DIMTR* <input type="checkbox"/> 1100L-LUTH <input type="checkbox"/> 1100L-DIM10 <input type="checkbox"/> 1100L-ELDO10	<input type="checkbox"/> 1500L-LUTH <input type="checkbox"/> 1500L-DIM10 <input type="checkbox"/> 1500L-ELDO10	<input type="checkbox"/> 120 <input type="checkbox"/> 277 <input type="checkbox"/> 347	<input type="checkbox"/> MD (Medium)	<input type="checkbox"/> 27K <input type="checkbox"/> 30K <input type="checkbox"/> 35K <input type="checkbox"/> 40K <input type="checkbox"/> 50K (85+CRI only)	<input type="checkbox"/> 85+ <input type="checkbox"/> 90+ <input type="checkbox"/> 98+**	<input type="checkbox"/> EMG-LED Typical lumen output of the fixture is up to 1000L in emergency mode. Contact the factory for details.	<input type="checkbox"/> LED-5101 <input type="checkbox"/> LED-5102 <input type="checkbox"/> LED-5107 <input type="checkbox"/> LED-5109 <input type="checkbox"/> LED-5110 <input type="checkbox"/> LED-5128 <input type="checkbox"/> LED-5123	<input type="checkbox"/> LED-5112 <input type="checkbox"/> LED-5113 <input type="checkbox"/> LED-5114 <input type="checkbox"/> LED-5115 <input type="checkbox"/> LED-5121 <input type="checkbox"/> LED-5122 <input type="checkbox"/> LED-5125	<input type="checkbox"/> CL-WH <input type="checkbox"/> CL-SCH <input type="checkbox"/> SHZ-SHZ <input type="checkbox"/> SHZ-WH <input type="checkbox"/> W-WH <input type="checkbox"/> MB-WH <input type="checkbox"/> WT-WH	<input type="checkbox"/> BLUE <input type="checkbox"/> RED <input type="checkbox"/> GREEN <input type="checkbox"/> FROST <input type="checkbox"/> AL <input type="checkbox"/> BZ <input type="checkbox"/> WH

\* DIMTR and LUT2W options only available in 120 Volt. \*\* 98+ CRI is available in 27K, 30K and 40K only

**MAXILUME**

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ISSUE 16F28 Rev. 0.4

LED

5"

5 INCH ARCHITECTURAL LED RETROFIT DOWNLIGHT

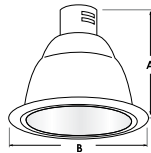


**EXAMPLE:** LED-5101-CL-WH

**LED-5101 - REFLECTOR**

**REFLECTOR/RING FINISH:**

CL-WH CL-SCH WT-WH SHZ-WH W-WH SHZ-SHZ MB-WH



A= 7"  
B= 6-3/8"

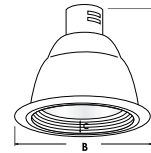


**EXAMPLE:** LED-5102-CL-WH

**LED-5102 - BAFFLE W/ REFLECTOR**

**BAFFLE/ RING FINISH:**

W-CL-WH P-CL-WH



A= 7"  
B= 6-3/8"  
C= 1"

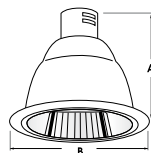


**EXAMPLE:** LED-5107-CL-WH

**LED-5107 - WALL WASH REFLECTOR**

**REFLECTOR/RING FINISH:**

CL-WH CL-SCH WT-WH SHZ-WH W-WH SHZ-SHZ MB-WH



A= 7"  
B= 6-3/8"

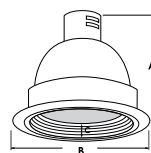


**EXAMPLE:** LED-5112-CL-WH

**LED-5112 - BAFFLE W/ FROSTED GLASS LENS**

**BAFFLE/ RING FINISH:**

W-WH P-WH



A= 7"  
B= 6-3/8"  
C= 1"

FOR  
**WET**  
LOCATION

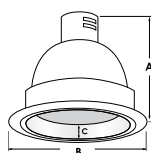


**EXAMPLE:** LED-5114-CL-WH

**LED-5114 - REFLECTOR W/ FROSTED GLASS LENS**

**REFLECTOR/RING FINISH:**

CL-WH CL-SCH WT-WH SHZ-WH W-WH SHZ-SHZ MB-WH



A= 7"  
B= 6-3/8"  
C= 1"

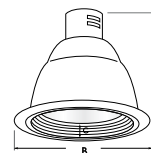


**EXAMPLE:** LED-5113-CL-WH

**LED-5113 - BAFFLE W/ TEMPERED CLEAR GLASS**

**BAFFLE/ RING FINISH:**

W-WH P-WH



A= 7"  
B= 6-3/8"  
C= 1"

FOR  
**WET**  
LOCATION

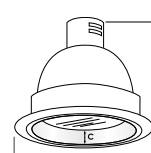


**EXAMPLE:** LED-5115-CL-WH

**LED-5115 - REFLECTOR W/ TEMPERED CLEAR GLASS**

**REFLECTOR/RING FINISH:**

CL-WH CL-SCH WT-WH SHZ-WH W-WH SHZ-SHZ MB-WH



A= 7"  
B= 6-3/8"  
C= 1"

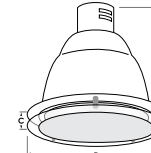


**EXAMPLE:** LED-5125-CL-WH

**LED-5125 - CENTRAL ETCHED FLOAT GLASS**

**REFLECTOR/RING FINISH:**

CL-WH CL-SCH WT-WH SHZ-WH W-WH SHZ-SHZ MB-WH



A= 7"  
B= 6-3/8"  
C= 1"

FOR  
**WET**  
LOCATION



**EXAMPLE:** LED-5109-CL-WH

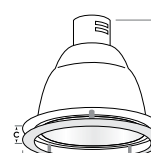
**LED-5109 - DECO GLASS REFLECTOR**

**REFLECTOR/RING FINISH:**

CL-WH CL-SCH WT-WH SHZ-WH W-WH SHZ-SHZ MB-WH

**GLASS FINISH:**

BLUE, RED, GREEN, FROST



A= 7"  
B= 6-3/8"  
C= 1"



**EXAMPLE:** LED-5110-CL-WH

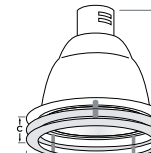
**LED-5110 - DOUBLE RING GLASS**

**REFLECTOR/RING FINISH:**

CL-WH CL-SCH WT-WH SHZ-WH W-WH SHZ-SHZ MB-WH

**GLASS FINISH:**

BLUE, RED, GREEN, FROST



A= 7"  
B= 6-3/8"  
C= 1-7/8"



ALUMINIUM  
DISC

**EXAMPLE:** LED-5128-CL-WH-AL

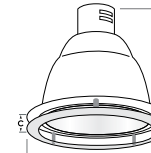
**LED-5128 - DECO GLASS REFLECTOR WITH ALUMINIUM DISC**

**REFLECTOR FINISH:**

CL-WH CL-SCH WT-WH SHZ-WH W-WH SHZ-SHZ MB-WH

**DISC FINISH:**

AL, WH, BZ



A= 7"  
B= 6-3/8"  
C= 1"

LED  
5"

5 INCH ARCHITECTURAL LED OPTICS

# 5" LED DOWNLIGHT PHOTOMETRY

## HVJ5-LED-1500L-DIM10-120-MD-40K-LED-5101-SHZ-SHZ

INPUT WATTS: **35**

LUMENS: **1301**

CRI: **85+**

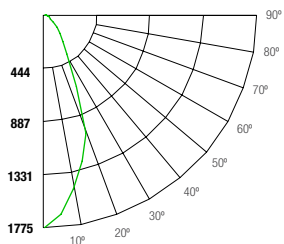
EFFICACY: **37**

CCT: **4000K**

TEST NO.: **EL-091398**

SPACING CRITERIA: **0.76**

### Candle Power Distribution (Candelas)



Cone of Light		
4.0	110.9	3.4'
8.0	27.7	6.9'
12.0	12.3	13.8'
16.0	6.9	13.8'
20.0	4.4	17.2'
Distance to Plane	Initial Footcandle at Nadir	Beam diameter

BEAM DIA. MEASURED AT 50% OF NADIR F.C.

### Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixt
0-20	515.29	N.A.	39.60
0-30	849.25	N.A.	65.30
0-40	1038.39	N.A.	79.80
0-60	1235.38	N.A.	95.00
0-80	1294.55	N.A.	99.50
0-90	1301.07	N.A.	100.00

### Luminance (Average candela/M<sup>2</sup>)

Angle in Degrees	Average 0°	Average 45°	Average 90°
45	21140	18340	17146
55	12179	11018	9107
65	8843	7185	6459
75	6294	4935	4390
85	7589	5617	2252

### Lumens Per Zone

Zone	Lumens
0-10	154.88
10-20	360.41
20-30	333.96
30-40	189.14
40-50	126.22
50-60	70.77
60-70	40.06
70-80	19.11
80-90	6.52

### Candela Tabulation

0	1	2	3	4	5	6	7	8	9
0	1774.96	1685.84	1320.59	771.74	339.14	183.52	85.76	45.88	20.00
5	8.12	2.18							

### Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

RC	RW	80%				70%				50%				30%				10%				0%			
		70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0%	50%	30%	10%
ROOM CAVITY RATIO	0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100	100	100	100
1	113	109	107	104	110	107	105	102	103	101	99	99	99	98	96	96	95	93	92	92	92	92	92	92	92
2	106	101	96	92	104	99	95	91	96	92	89	89	89	87	87	86	86	86	84	84	84	84	84	84	84
3	100	93	88	83	98	92	87	82	89	85	81	81	81	80	80	80	80	79	79	79	79	79	79	79	79
4	95	86	80	76	93	85	80	75	83	78	74	74	74	73	73	73	73	73	71	71	71	71	71	71	71
5	90	81	74	70	88	80	74	69	78	73	69	69	69	68	68	68	68	68	67	67	67	67	67	67	67
6	85	75	69	64	83	75	69	64	73	68	64	64	64	63	63	63	63	63	62	62	62	62	62	62	62
7	81	71	64	60	79	70	64	60	69	63	59	59	59	58	58	58	58	58	57	57	57	57	57	57	57
8	77	67	60	56	75	66	60	56	65	60	56	56	56	55	55	55	55	55	54	54	54	54	54	54	54
9	73	63	57	53	72	63	57	53	62	56	52	52	52	51	51	51	51	51	50	50	50	50	50	50	50
10	70	60	54	50	69	59	53	50	58	53	49	49	49	48	48	48	48	48	47	47	47	47	47	47	47

RC - Ceiling Cavity Reflectance

RW - Wall Reflectance

## HVJ5-LED-1500L-DIM10-120-MD-40K-LED-5101-CL-WH

INPUT WATTS: **35**

LUMENS: **1692**

CRI: **85+**

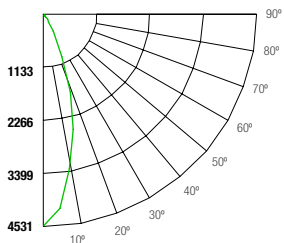
EFFICACY: **48**

CCT: **4000K**

TEST NO.: **EL-101339**

SPACING CRITERIA: **0.56**

### Candle Power Distribution (Candelas)



Cone of Light		
4.0	283.2	2.3'
8.0	70.8	4.7'
12.0	31.5	7.0'
16.0	17.7	9.3'
20.0	11.3	11.7'
Distance to Plane	Initial Footcandle at Nadir	Beam diameter

BEAM DIA. MEASURED AT 50% OF NADIR F.C.

### Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixt
0-20	1034.06	N.A.	61.10
0-30	1471.03	N.A.	86.90
0-40	1613.13	N.A.	95.30
0-60	1683.92	N.A.	99.50
0-80	1690.11	N.A.	99.90
0-90	1691.94	N.A.	100.00

### Luminance (Average candela/M<sup>2</sup>)

Angle in Degrees	Average 0°	Average 45°	Average 90°
45	12165	8054	6827
55	2620	2548	1004
65	1569	730	544
75	1013	774	384
85	3439	2869	280

### Lumens Per Zone

Zone	Lumens
0-10	363.55
10-20	670.50
20-30	436.98
30-40	142.10
40-50	57.18
50-60	13.61
60-70	4.24
70-80	1.95
80-90	1.83

### Candela Tabulation

0	1	2	3	4	5	6	7	8	9
0	4531.35	4065.97	2445.03	991.14	269.61	105.61	18.45	8.14	3.22
5	3.68	0.91							

### Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

RC	RW	80%				70%				50%				30%				10%				0%			
		70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0%	50%	30%	10%
ROOM CAVITY RATIO	0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100	100	100	100
1	114	112	110	108	112	110	108	106	106	106	104	103	102	101	100	99	98	97	95	95	95	95	95	95	95
2	110	105	102	99	108	104	101	98	101	98	96	96	96	96	94	95	93	92	90	90	90	90	90	90	90
3	105	100	95	92	103	98	95	91	96	93	90	91	91	89	89	91	89	87	86	86	86	86	86	86	86
4	101	95	90	86	99	94	89	86	92	88	85	85	85	84	84	88	85	83	82	82	82	82	82	82	82
5	97	90	85	82	96	89	85	81	87	84	80	80	80	80	80	86	82	80	84	81	81	81	81	81	81
6	93	86	81	77	92	85	80	77	84	80	77	77	77	76	76	82	79	76	81	78	76	76	76	76	76
7	90	82	77	74	89	81	77	73	80	76	73	73	73	73	73	79	75	73	78	75	72	72	72	72	72
8	87	79	74	70	85	78	73	70	77	73	70	70	70	70	70	76	72	70	75	72	69	69	69	69	69
9	83	75	71	67	83	75	70	67	74	70	67	67	67	67	67	73	69	67	73	69	66	66	66	66	66
10	81	73	68	64	80	72	67	64	71	67	64	64	64	64	64	71	67	64	70	66	64	64	64	64	64

RC - Ceiling Cavity Reflectance

RW - Wall Reflectance