



6" High Lumen LED Downlight **MD6LED** 120 - 277V, 347V 0-10V Dimming

DATE: _____ TYPE: _____

FIRM NAME: _____

PROJECT: _____

Architektür



Ceiling Cutout: 6 1/4"
Maximum Ceiling Thickness 1 1/4"
Consult factory for ceiling thickness to 2"
For conversion to millimeters,
multiply inches by 25.4
Not to Scale

APPLICATIONS:

Architektür MD6LED Series is a 6" specification grade high output LED downlight capable of delivering over 9,000 lumens and designed for ceiling heights from 20 to 50 feet. Combining energy savings, long life, low maintenance cost & controllability, it is an excellent alternative to metal halide (up to 175 watts) and quartz (up to 500 watts) fixtures. Rated for 80% lumen maintenance at 50,000 hours at 40°C Ambient or 60,000 hours at 30°C Ambient, when free airflow is available around the fixture.

HOUSING:

18 gauge corrosion protected steel platform designed for accessibility. Pre-wired J-box with snap-on covers. Separate power supply module serviceable and removable from above or below the ceiling. Power supply module is connected to the LED light engine using a locking plug-in connector.

REFLECTOR:

High purity spun aluminum self-flanged reflector with iridescent suppressed Alzak anodized finish. Available in several finishes in a variety of anodized colors as well as painted trim options. Offered in 25°, 35°, 45°, and 55° optical distributions. Easy to install snap in mounting system with safety tether included.

LED LIGHT ENGINE:

The MD6LED uses up to 48 individual Nichia LEDs providing a minimum of 80 CRI with 3 SDCM color consistency. The LED light engine is available in multiple lumen packages and color temperatures to accommodate any design requirement. The use of individual LEDs to achieve these lumen packages enables optimal thermal management while creating a visually pleasing diffuse appearance in the ceiling. The LED light engine is coupled to a passive heat sink utilizing innovative heat pipe technology, and is protected with a self resetting thermal protector.

LED DRIVER:

Each string of 12 LEDs is powered by a single 40 watt, constant current LED driver (up for 4 drivers per fixture). The driver is UL8750 and Class 2 compliant. Lutron Series A drivers and eldoLED POWERdrive drivers also available.

DIMMING:

Standard 0-10V dimming provides flicker-free dimming to 10%. For sizing of the circuit control, the dimming circuit may require up to 1.2mA of sink current. See list of compatible dimmers below in the Dimming Compatibility Table.

Lutron 2-wire and EcoSystem, or 0-10V dimming available to 1%, and DMX with RDM (remote device management) to less than 0.1%.

INSTALLATION:

Universal adjustable mounting brackets accommodate 1.5" or 3/4" lathing channel or 1/2" EMT (by others) or Prescolite B24 or B6 bar hangers.

CERTIFICATIONS:

CSA certified to US and Canadian safety standards. Suitable for damp and wet locations. Non-IC rated and approved for 90°C, 4IN/4OUT, through branch wiring. Product is marked spacing and must be installed with the following minimum spacings:

Center to Center of adjacent luminaires : 36"

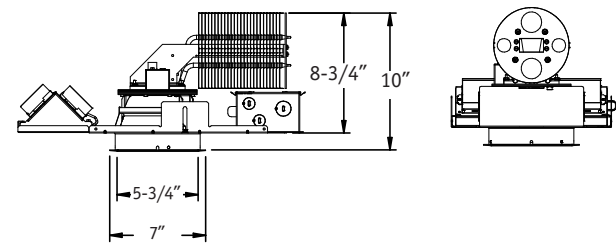
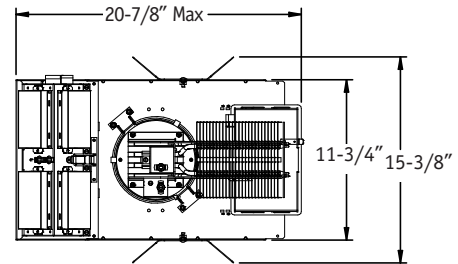
Minimum Overhead Clearance: 10 1/2"

(To bottom of metal pan)

Center of Luminaire to Side of Building Member : 18"

WARRANTY:

5 Year Warranty. See www.prescolite.com for details.



CATALOG NUMBER:

EXAMPLE: MD6LED9L35K8-6MDWFL45

Order housing, reflector, and accessories separately

HOUSING	OUTPUT	LED COLOR TEMP	CRI	VOLTAGE	OPTIONS	TRIM APERTURE	BEAM ANGLE	REFLECTOR FINISH	REFLECTOR COLORS	REFLECTOR OPTIONS	ACCESSORIES
<input type="checkbox"/> MD6LED 6" High output LED housing	<input type="checkbox"/> 5L 5000 Delivered Lumens <input type="checkbox"/> 7L 7000 Delivered Lumens <input type="checkbox"/> 9L 9000 Delivered Lumens	<input type="checkbox"/> 27K 2700 Kelvin <input type="checkbox"/> 30K 3000 Kelvin <input type="checkbox"/> 35K 3500 Kelvin <input type="checkbox"/> 40K 4000 Kelvin <input type="checkbox"/> 50K 5000 Kelvin	<input type="checkbox"/> 8 80+ CRI	<input type="checkbox"/> Blank 120 thru 277 Volt <input type="checkbox"/> 120V 120 Volt (for 2DM only) <input type="checkbox"/> 347² 347 Volt	<input type="checkbox"/> Blank Standard 0-10V dimming <input type="checkbox"/> EDM Hi-Lume 1% EcoSystem LED Driver <input type="checkbox"/> 2DM Hi-Lume 1% 2-wire LED Driver (120V only) <input type="checkbox"/> DM1 0-10V 1% Dimming <input type="checkbox"/> DMX DMX with RDM dimming to <0.1% <input type="checkbox"/> LF³ Variable Intensity Lighting Lumen Factor	<input type="checkbox"/> 6MD 6" Alzak Reflector	<input type="checkbox"/> MD25 Nominal 25 Degree Cutoff <input type="checkbox"/> FL35 Nominal 35 Degree Cutoff <input type="checkbox"/> WFL45 Nominal 45 Degree Cutoff <input type="checkbox"/> XFL55 Nominal 55 Degree Cutoff	<input type="checkbox"/> Blank Specular <input type="checkbox"/> SS Semi-Specular <input type="checkbox"/> MFC American Matte™ <input type="checkbox"/> V Kurt Versen Specular <input type="checkbox"/> VS Kurt Versen Softglow® <input type="checkbox"/> VSS Kurt Versen SoftSheen™	<input type="checkbox"/> Blank Clear Alzak <input type="checkbox"/> CG Champagne Gold Alzak <input type="checkbox"/> GD Gold Alzak <input type="checkbox"/> BL Black Alzak <input type="checkbox"/> WE Wheat Alzak <input type="checkbox"/> LW Light Wheat Alzak <input type="checkbox"/> PW Pewter Alzak <input type="checkbox"/> BC' Painted Black Cone <input type="checkbox"/> WC' Painted White Cone	<input type="checkbox"/> WT Painted White Flange <input type="checkbox"/> BT Painted Black Flange	<input type="checkbox"/> B24 Set of two (2) 24" bar hangers for T-bar ceilings <input type="checkbox"/> B6 Set of two (2) bar hangers for ceiling joist up to 24" centers <input type="checkbox"/> SCA6D Sloped ceiling adapter (see note on page 6)

¹Must specify either WT or BT for painted cone

²Available in standard 0-10V dimming only.

³ Lumen factor available in 5% increments, from 75% (075) to 100% (100) on the 5L, 7L, or 9L housings. See page 2 for more information



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ARCH-LED-019

PHOTOMETRIC DATA

Architektur- 6" High Lumen MD6LED

DRIVER DATA	MD6LED5L	MD6LED7L	MD6LED9L
Input Voltage	120-277V	120-277V	120-277V
Input Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Input Current	0.58 (120V) 0.25 (277V)	0.88 (120V) 0.38 (277V)	1.17 (120V) 0.51 (277V)
Input Power	75W	105W	140W
Constant Current Output	900mA	850mA	850mA
Power Factor	≥0.90	≥0.90	≥0.90
THD	<20%	<20%	<20%
EMI Filtering	FCC 47CFR Part 15, Class A	FCC 47CFR Part 15, Class A	FCC 47CFR Part 15, Class A
Operating Temperature	-20°C to 40°C*	-20°C to 40°C*	-20°C to 40°C*
Dimming	0-10V	0-10V	0-10V

Over-voltage, over-current, short-circuit protected

Lumen output & input wattage may vary slightly with EDM/2DM/DM1/DMX Driver options

**347V: Utilizes step-down transformer with 7% increase in power consumption for all 347V models

*See application notes on page 1 for details

Lumen Multiplier Table

Photometrics for the MD6LED are published below at a nominal 3500 Kelvin temperature. This table may be used to approximate the lumen values at different Kelvin temperatures. Power consumption would stay the same.

5000 Kelvin	1.14
4000 Kelvin	1.03
3500 Kelvin	1.00
3000 Kelvin	1.00
2700 Kelvin	0.91



Variable Intensity
Technology

VARIABLE INTENSITY LIGHTING

LUMEN FACTOR (LF)

The MD6LED offers the ability to deliver precisely the amount of light you need for any downlighting application - from less than 5000 lumens to more than 9000 lumens! The standard Megalum 5L, 7L, and 9L fixtures can all be tuned from 75% to 100% of their published lumen outputs. Simply select your light engine, and in the housing options select a lumen factor (LF___).

In most lighting calculation software, the "LF" can be used in the ballast factor input to adjust the calculated light levels.

Lumen Factor	075	080	085	090	095	100
Watt Factor	0.69	0.76	0.82	0.88	0.94	1

It is also important to note that the input power also changes in the same direction, but not in proportion to the lumens. The 'watt factor' corresponding to the appropriate 'lumen factor' can be used to calculate the input power.

Example:

Desired: 8000 Lumens using a FL35 reflector

MD6LED 9L FL35 Fixture provides 9519 delivered lumens and requires 136.5 input watts (chart, page 3)

Choose: LF085. 9519 lumens x 0.85 = **8091 Delivered Lumens**

Calculated Watts: The corresponding Watt Factor to LF085 = 0.82

136.5 watts x 0.82 = 112.0 **input watts**



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HUBBELL
Lighting

PHOTOMETRIC DATA

Architektur- 6" High Lumen MD6LED

Delivered Lumens

The table below shows the delivered lumens for the various lumen outputs and beam distributions. Use this chart in connection with the lumen factor (LF) capability to deliver any output required.

Output	Beam	Delivered Lumens	Input Watts	Lumens Per Watt	Test Number	Full Catalog String
9L	XFL55	8393	136.7	61.4	IES	MD6LED9L35K8 6MDXFL55
9L	WFL45	9107	136.6	66.7	IES	MD6LED9L35K8 6MDWFL45
9L	FL35	9519	136.5	69.7	IES	MD6LED9L35K8 6MDFL35
9L	MD25	9710	136.5	71.1	IES	MD6LED9L35K8 6MDMD25
7L	XFL55	6435	102.6	62.7	IES	MD6LED7L35K8 6MDXFL55
7L	WFL45	7010	102.7	68.3	IES	MD6LED7L35K8 6MDWFL45
7L	FL35	7280	102.7	70.9	IES	MD6LED7L35K8 6MDFL35
7L	MD25	7410	102.7	72.2	IES	MD6LED7L35K8 6MDMD25
5L	XFL55	4473	72.9	61.4	IES	MD6LED5L35K8 6MDXFL55
5L	WFL45	4860	73.0	66.6	IES	MD6LED5L35K8 6MDWFL45
5L	FL35	5049	72.9	69.3	IES	MD6LED5L35K8 6MDFL35
5L	MD25	5148	73.1	70.4	IES	MD6LED5L35K8 6MDMD25

MD6LED9L35K8-6MDXFL55

LED Light Engine: 3500K, 80+ CRI
 System Wattage: 136.7W
 Fixture Delivered Lumens: 8393
 Fixture Efficacy: 61.4
 Spacing Criteria: 1.4

ZONAL LUMEN SUMMARY

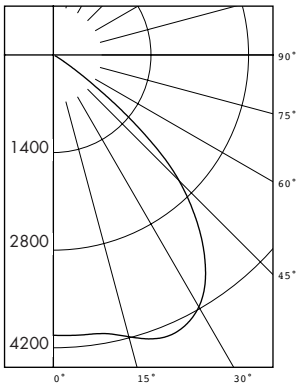
ZONE	LUMENS	%FIXTURE
0-30	3567	42.5
0-40	5924	70.6
0-60	8341	99.4
0-90	8393	100.0

LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average
45°	215097
55°	47542
65°	4236
75°	2305
85°	1369

CANDELA DISTRIBUTION

DEG	CANDELA	LUMENS
0	4021	
5	4035	386
15	4184	1191
25	4335	1990
35	3806	2357
45	2549	1903
55	457	514
65	30	37
75	10	12
85	2	3
90	0	



Test No. 16.00599

Tested at 25°C Ambient in accordance to IESNA LM-79-2008

COEFFICIENTS OF UTILIZATION Zonal Cavity Method

Room Cavity Ratio	% Effective Ceiling Cavity Reflectance																
	80%			70%			50%			30%			10%				
	70	50	30	70	50	30	70	50	30	70	50	30	70	50	30		
1	112	109	106	103	110	107	104	102	103	101	99	99	97	96	96	94	93
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83
3	98	90	84	79	96	89	83	79	86	81	77	84	79	76	81	78	75
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67
5	85	75	68	63	83	74	67	62	72	66	62	70	65	61	69	64	60
6	80	69	61	56	78	68	61	56	66	60	55	65	59	55	63	58	55
7	74	63	56	50	73	62	55	50	61	55	50	60	54	50	58	53	49
8	70	58	51	46	68	57	50	46	56	50	45	55	49	45	54	49	45
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41
10	61	50	43	38	60	49	42	38	48	42	38	47	42	38	46	41	37

MD6LED9L35K8-6MDXFL55

Test No. 16.00599

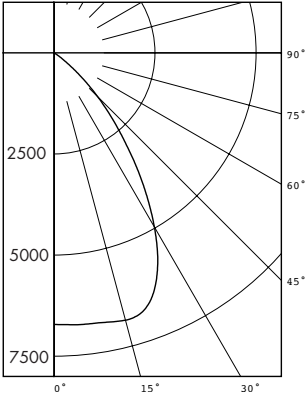


PHOTOMETRIC DATA

Architektur- 6" High Lumen MD6LED

MD6LED9L35K8-6MDWFL45

LED Light Engine: 3500K, 80+ CRI
 System Wattage: 136.6W
 Fixture Delivered Lumens: 9107
 Fixture Efficacy: 66.7
 Spacing Criteria: 1.1



CANDELA DISTRIBUTION

DEG	CANDELA	LUMENS
0	6715	
5	6747	645
15	6844	1927
25	6040	2737
35	3718	2308
45	1532	1191
55	247	263
65	19	25
75	7	8
85	3	3
90	0	

Test No. 16.00600

Tested at 25°C Ambient in accordance to IESNA LM-79-2008

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%FIXTURE
0-30	5309	58.3
0-40	7617	83.6
0-60	9071	99.6
0-90	9107	100.0

LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average
45°	129278
55°	25695
65°	2683
75°	1614
85°	2054

COEFFICIENTS OF UTILIZATION Zonal Cavity Method

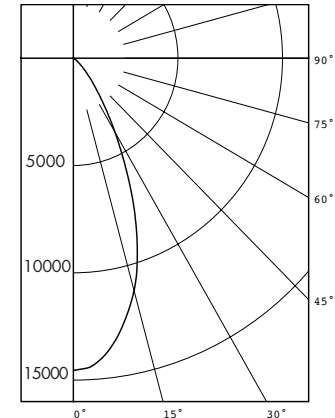
Room Cavity Ratio	% Effective Ceiling Cavity Reflectance																
	80%		70%		50%		30%		10%								
	70	50	30	10	70	50	30	10	50	30	10	50	30	10			
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	97	95	94
2	107	101	97	93	104	100	96	92	96	93	90	93	91	88	91	88	86
3	101	93	88	84	98	92	87	83	89	85	82	87	83	80	85	82	79
4	95	86	80	76	93	85	80	75	83	78	74	81	77	73	79	75	72
5	89	80	74	69	87	79	73	68	77	72	68	75	71	67	74	70	67
6	84	74	68	63	82	73	67	63	72	66	62	70	65	62	69	65	61
7	79	69	62	58	78	68	62	58	67	61	57	66	61	57	65	60	57
8	75	64	58	53	73	64	57	53	63	57	53	61	56	53	60	56	52
9	71	60	54	49	70	60	53	49	59	53	49	58	52	49	57	52	49
10	67	56	50	46	66	56	50	46	55	49	45	54	49	45	53	49	45

MD6LED9L35K8-6MDWFL45

Test No. 16.00600

MD6LED9L35K8-6MDFL35

LED Light Engine: 3500K, 80+ CRI
 System Wattage: 136.5W
 Fixture Delivered Lumens: 9519
 Fixture Efficacy: 69.7
 Spacing Criteria: 0.7



CANDELA DISTRIBUTION

DEG	CANDELA	LUMENS
0	14548	
5	14147	1311
15	11212	3085
25	6266	2863
35	2327	1506
45	710	573
55	172	158
65	12	17
75	5	5
85	2	2
90	0	

Test No. 16.00601

Tested at 25°C Ambient in accordance to IESNA LM-79-2008

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%FIXTURE
0-30	7258	76.2
0-40	8765	92.1
0-60	9495	99.7
0-90	9519	100.0

LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average
45°	59913
55°	17893
65°	1694
75°	1153
85°	1369

COEFFICIENTS OF UTILIZATION Zonal Cavity Method

Room Cavity Ratio	% Effective Ceiling Cavity Reflectance																
	80%		70%		50%		30%		10%								
	70	50	30	10	70	50	30	10	50	30	10	50	30	10			
1	114	111	109	107	111	109	107	105	105	103	102	101	100	99	98	97	96
2	108	104	100	97	106	102	99	96	99	96	94	96	94	92	93	91	90
3	103	97	92	89	101	96	91	88	93	90	87	91	88	85	89	86	84
4	98	91	86	82	97	90	85	81	88	84	80	86	82	80	84	81	79
5	94	86	80	76	92	85	80	76	83	79	75	82	78	75	80	77	74
6	89	81	75	71	88	80	75	71	79	74	70	77	73	70	76	72	70
7	85	77	71	67	84	76	70	67	75	70	66	73	69	66	72	69	66
8	82	72	67	63	80	72	67	63	71	66	63	70	65	62	69	65	62
9	78	69	63	59	77	68	63	59	67	63	59	67	62	59	66	62	59
10	75	65	60	56	74	65	60	56	64	59	56	63	59	56	63	59	56

MD6LED9L35K8-6MDFL35

Test No. 16.00601

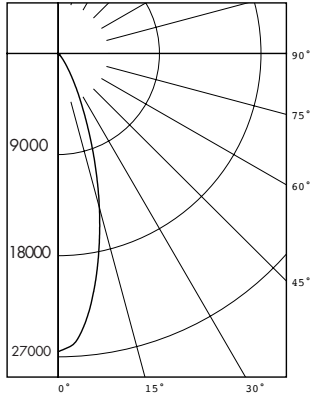


PHOTOMETRIC DATA

Architektur- 6" High Lumen MD6LED

MD6LED9L35K8-6MDMD25

LED Light Engine: 3500K, 80+ CRI
 System Wattage: 136.5W
 Fixture Delivered Lumens: 9710
 Fixture Efficacy: 71.1
 Spacing Criteria: 0.5



CANDELA DISTRIBUTION

DEG	CANDELA	LUMENS
0	26552	
5	24714	2199
15	14195	3877
25	4915	2329
35	1313	876
45	360	300
55	128	112
65	8	13
75	3	4
85	1	1
90	0	

ZONAL LUMEN SUMMARY

ZONE	LUMENS	% FIXTURE
0-30	8406	86.6
0-40	9282	95.6
0-60	9693	99.8
0-90	9710	100.0

LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average
45°	27900
55°	12229
65°	1037
75°	635
85°	629

COEFFICIENTS OF UTILIZATION Zonal Cavity Method

Room Cavity Ratio	% Effective Ceiling Cavity Reflectance																
	80%			70%			50%			30%			10%				
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	
1	114	112	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97
2	110	108	106	99	108	104	101	98	101	98	96	98	96	94	95	94	92
3	105	100	96	92	104	99	95	92	96	93	90	94	91	89	92	89	88
4	101	95	90	87	100	94	90	86	92	88	85	90	87	84	88	86	83
5	97	90	86	82	96	90	85	82	88	84	81	86	83	80	85	82	80
6	94	86	81	78	92	86	81	78	84	80	77	83	79	77	82	78	76
7	90	83	78	74	89	82	77	74	81	77	74	80	76	73	79	75	73
8	87	79	74	71	86	79	74	71	78	73	70	77	73	70	76	72	70
9	84	76	71	68	83	76	71	68	75	70	67	74	70	67	73	70	67
10	81	73	68	65	80	73	68	65	72	68	65	71	67	65	71	67	65

MD6LED9L35K8-6MDMD25

Test No. 16.00602

Test No. 16.00602

Tested at 25°C Ambient in accordance to IESNA LM-79-2008

Dimming Compatibility Table

Dimming Ballast	Manufacturer	Web Link
DM/DM1	Lutron DDTV	http://bit.ly/11jSvZg
DM/DM1	Leviton AWRMG-7xx, AWSMG-7xx, AWSMT-7xx	http://bit.ly/1Bjn2R9
EDM	Lutron	http://bit.ly/1vtjHA1
2DM	Lutron	http://bit.ly/1S4WjXK

DMX

See instruction sheet on www.prescolite.com for connection & installation information.

Other useful links: <http://www.eldoled.com/led-drivers/powerdrive/50-watt/ac-561s/>

SCA6D

When ordering a sloped ceiling adapter, specify the degree of slope in 5° increments, maximum of 35°. For a more precise degree or wet ceiling applications, please contact factory. Sloped ceiling adapter and housing must be installed at the same time.

Variable Intensity Technology

Offering the ability to deliver precisely the amount of light you need for any downlighting application- from less than 5000 lumens to more than 9,000 lumens. The standard Megalum 5L, 7L, and 9L fixtures can all be tuned from 75% to 100% of their published lumen outputs.



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