

MC10LED

10" HIGH LUMEN LED CYLINDER
120 OR 277V
0-10V DIMMING



APPLICATIONS:

Designed for interior spaces, the MC10LED Series is a 10" specification grade high output LED cylinder capable of delivering over 16,500 lumens designed for ceiling heights from 20 to 60 feet. Combining energy savings, long life, low maintenance cost & controllability, it is an excellent alternative to metal halide (up to 250 watts) and quartz (up to 500 watts) fixtures. Rated for a minimum of 50,000 hours life (70% lumen maintenance) with ambient temperatures up to 30° C.

HOUSING:

Seamless .063" thick aluminum cylinder body with durable powder coat paint finish in a variety of architectural colors including Prescolite's exclusive Zet, metallic silver.

REFLECTOR:

High purity spun aluminum reflector with iridescence suppressed Alzak anodized finish. Available in specular and semi-specular finish in a variety of anodized colors as well as painted trim options. 35°, 45° and 55° optical distributions with optional lens.

LED LIGHT ENGINE:

The MC10LED uses up to 480 individual Nichia LEDs specifically mixed to provide a minimum of 80 CRI with 3 SCDM 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 array utilizing innovative heat pipe technology and is protected with a self resetting thermal protector.

LED DRIVER:

Each string of 120 LEDs is powered by a single 40 watt, constant current Osram LED driver (up for 4 drivers per fixture). The driver is UL8750 and Class 2 compliant. Lutron & 0-10V dimming 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 on page 4.

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

INSTALLATION:

Available as either a pendant, cord & cable, or ceiling mounted option. CCM option comes standard with 20ft length.

CERTIFICATIONS:

Certified to US and Canadian safety standards. Suitable for damp, interior locations.

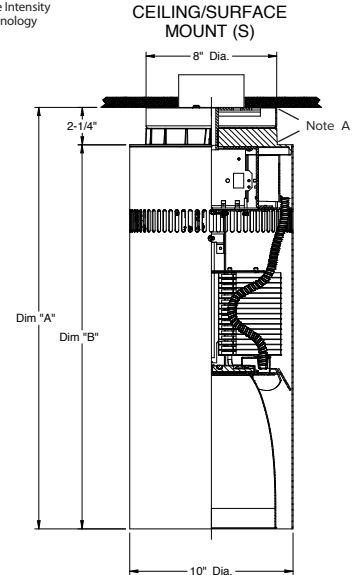
WARRANTY:

5 Year Warranty.

DATE: _____ TYPE: _____

FIRM NAME: _____

PROJECT: _____



	26" HOUSING	30" HOUSING
DIM "A"	25-3/4"	29-1/8"
DIM "B"	23-1/2"	26-7/8"

Note A: These areas will be painted black when Brushed Aluminum is chosen

CATALOG NUMBER:

EXAMPLE: MC10LEDP12L35K8WFL45

CYLINDER	MOUNTING	OUTPUT	LED COLOR TEMP	CRI	OPTIONS	BEAM ANGLE	REFLECTOR FINISH	REFLECTOR COLOR	OPTIONS	CYLINDER COLOR
<input type="checkbox"/> MC10LED 10" High Output LED cylinder	<input type="checkbox"/> P Pendant (18" standard) <input type="checkbox"/> S Surface <input type="checkbox"/> CCM ⁶ Cord & Cable Mount <input type="checkbox"/> W Wall Mount	<input type="checkbox"/> 4L 4000 Delivered Lumens <input type="checkbox"/> 8L 8000 Delivered Lumens <input type="checkbox"/> 12L ⁷ 12000 Delivered Lumens <input type="checkbox"/> 16L ⁷ 16000 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 ⁴ 5000 Kelvin	<input type="checkbox"/> 8 80+ CRI <input type="checkbox"/> 9+ 90+ CRI	<input type="checkbox"/> Blank Standard 0-10V dimming to 10% <input type="checkbox"/> EDM Lutron EcoSystem to 1% <input type="checkbox"/> 2DM Lutron 2 Wire Leading Edge Dimming to 1% (120V only) <input type="checkbox"/> DM1 0-10V dimming to 1% <input type="checkbox"/> DMX DMX-512 enabled <input type="checkbox"/> LF ⁵ Variable Intensity Lighting Lumen Factor	<input type="checkbox"/> FL35 35 Degree Cutoff <input type="checkbox"/> WFL45 45 Degree Cutoff <input type="checkbox"/> XFL55 55 Degree Cutoff <input type="checkbox"/> WW ^{1,8} 45 Degree Cutoff	<input type="checkbox"/> Blank Specular <input type="checkbox"/> SS Semi-Specular <input type="checkbox"/> VS Kurt Versen Softglow® <input type="checkbox"/> VSS Kurt Versen SoftSheen®	<input type="checkbox"/> Blank Clear <input type="checkbox"/> CG Champagne Gold <input type="checkbox"/> BL Black <input type="checkbox"/> LW Light Wheat Alzak <input type="checkbox"/> PW Pewter <input type="checkbox"/> BC Painted Black Cone <input type="checkbox"/> WC Painted White Cone	<input type="checkbox"/> Blank ⁹ No Lens <input type="checkbox"/> CL ⁹ Clear Lens <input type="checkbox"/> SL ⁹ Solite Lens <input type="checkbox"/> 26 26" Housing <input type="checkbox"/> 30 30" Housing	<input type="checkbox"/> BA ² Brushed Aluminum <input type="checkbox"/> BZ Bronze <input type="checkbox"/> BL Matte Black <input type="checkbox"/> WH Matte White <input type="checkbox"/> Z Zet

¹Satin lens is standard for wall wash (WW)

²Standard with black accents

³Not available with EDM or 2DM

⁴50K not available in 90 CRI

⁵Lumen Factor available in 5% increments, from 75% (075) to 110% (110) on the 4L, 8L, 12L, or 16L housings. See spec sheet for more information. Not available greater than 100 for 2DM & EDM.

⁶CCM comes with 20ft clear cord & cable and white ceiling canopy standard.

⁷Not available in wall wash (WW)

⁸Available with 4L and 8L only

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0-10V DIMMING

DRIVER DATA	MC10LED4L	MC10LED8L	MC10LED12L	MC10LED16L
Input Voltage	120-277V	120-277V	120-277V	120-277V
Input Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Input Current	0.33 (120v) 0.14 (277v)	0.68 (120v) 0.28 (277v)	0.98 (120v) 0.42 (277v)	1.3 (120v) 0.56 (277v)
Input Power	39W	78W	117W	156W
Constant Current Output	950mA	950mA	950mA	950mA
Power Factor	≥0.90	≥0.90	≥0.90	≥0.90
THD	<25%	<20%	<20%	<20%
EMI Filtering	FCC 47CFR Part 15, Class A	FCC 47CFR Part 15, Class A	FCC 47CFR Part 15, Class A	FCC 47CFR Part 15, Class A
Operating Temperature	-30°C to +30°C	-30°C to +30°C	-30°C to +30°C	-30°C to +30°C
Dimming	0-10V	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

LUMEN MULTIPLIER TABLE

Photometrics for the MC10LED 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
Solite Lens	0.87
90 CRI.....	0.80



Variable Intensity
Technology

**VARIABLE INTENSITY LIGHTING
LUMEN FACTOR (LF)**

The Megalum offers the ability to deliver precisely the amount of light you need for any downlighting application — from less than 2000 lumens to nearly 17000 lumens! The standard Megalum 3L, 6L, 9L and 12L fixtures can all be tuned from 55% to 125% of their published lumen outputs. Simply select your light engine, and in the housing options select a lumen factor (LF___). Note, this is not available on the '15L' lumen package.

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	105	110
Watt Factor	0.72	0.78	0.83	0.89	0.94	1	1.06	1.13

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: 13000 Lumens using a WFL45 open reflector
MC10LED 12L WFL45 Open fixture provides 12095 delivered lumens and requires 117.5 input watts (chart, page 3)
Choose: LF110. 12095 lumens x 1.1 = **13304 Delivered Lumens**
Calculated Watts: The corresponding Watt Factor to LF110 = 1.13
117.5 watts x 1.13 = **132.8 input watts**

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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.

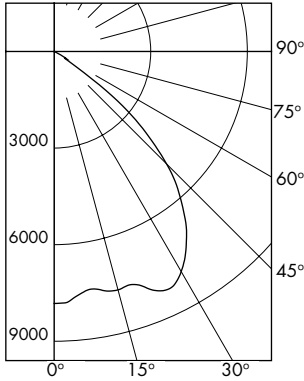
Output	Beam	Lens	Delivered Lumens	Input Watts	Lumens Per Watt	Test Number	Full Catalog String
16L	XFL55	Open	16132	156.5	103.1	IES	MC10LEDS16L35K8XFL55
16L	WFL45	Open	15920	156.1	102	IES	MC10LEDS16L35K8WFL45
16L	FL35	Open	14833	156.4	94.8	IES	MC10LEDS16L35K8FL35
16L	XFL55	SL	14150	156.3	90.5	IES	MC10LEDS16L35K8XFL55SL
16L	WFL45	SL	13925	156.3	89.1	IES	MC10LEDS16L35K8WFL45SL
16L	FL35	SL	13077	156.2	83.7	IES	MC10LEDS16L35K8FL35SL
12L	XFL55	Open	12221	117.5	104	IES	MC10LEDS12L35K8XFL55
12L	WFL45	Open	12095	117.5	102.9	IES	MC10LEDS12L35K8WFL45
12L	FL35	Open	11253	117.5	95.8	IES	MC10LEDS12L35K8FL35
12L	XFL55	SL	10767	117.5	91.6	IES	MC10LEDS12L35K8XFL55SL
12L	WFL45	SL	10580	117.5	90	IES	MC10LEDS12L35K8WFL45SL
12L	FL35	SL	9939	117.5	84.7	IES	MC10LEDS12L35K8FL35SL
8L	XFL55	Open	8533	78.1	109.3	IES	MC10LEDS8L35K8XFL55
8L	WFL45	Open	8094	78.1	103.6	IES	MC10LEDS8L35K8WFL45
8L	FL35	Open	7614	78.3	97.2	IES	MC10LEDS8L35K8FL35
8L	XFL55	SL	7129	78.2	91.3	IES	MC10LEDS8L35K8XFL55SL
8L	WFL45	SL	7269	78.2	93.1	IES	MC10LEDS8L35K8WFL45SL
8L	FL35	SL	6648	78.1	85	IES	MC10LEDS8L35K8FL35SL
4L	XFL55	Open	4337	38.8	111.8	IES	MC10LEDS4L35K8XFL55
4L	WFL45	Open	4097	38.8	105.6	IES	MC10LEDS4L35K8WFL45
4L	FL35	Open	3881	38.9	99.8	IES	MC10LEDS4L35K8FL35
4L	XFL55	SL	3794	38.8	96.6	IES	MC10LEDS4L35K8XFL55SL
4L	WFL45	SL	3701	38.8	95.4	IES	MC10LEDS4L35K8WFL45SL
4L	FL35	SL	3411	38.8	87.9	IES	MC10LEDS4L35K8FL35SL

MC10LED

10" HIGH LUMEN LED CYLINDER
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0-10V DIMMING

MC10LED16L35K8XFL55

LED Light Engine: 3500K, 80+ CRI
System Wattage: 156.5W
Fixture Delivered Lumens: 16132
Fixture Efficacy: 103.1
Spacing Criteria: 1.36



CANDELA DISTRIBUTION

DEG	CANDELA
0	7826
5	7645
15	7667
25	8181
35	7162
45	4939
55	910
65	53
75	18
85	4
90	0

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%FIXT
0-40	11062	68.6
0-60	15985	99.1
0-90	16132	100.0
0-180	16132	100.0

LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average - 0°
45°	215386
55°	48923
65°	3867
75°	2145
85°	1415

COEFFICIENTS OF UTILIZATION Zonal Cavity Method

Room Cavity Ratio	% Effective Ceiling Cavity Reflectance														
	80%			70%			50%			30%			10%		
	20% Effective Floor Cavity Reflectance														
	% Wall Reflectance														
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	
1	112	109	106	103	110	107	104	102	103	100	98	99	97	95	
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	
4	91	82	75	69	89	80	74	69	78	72	68	76	71	67	
5	85	74	67	62	83	73	66	61	71	65	61	70	64	60	
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	
7	74	62	55	49	72	61	54	49	60	54	49	59	53	48	
8	69	57	50	45	67	57	49	45	55	49	44	54	48	44	
9	65	53	45	41	63	52	45	40	51	45	40	50	44	40	
10	61	49	42	37	59	48	42	37	47	41	37	46	41	37	

MC10LED16L35K8XFL55

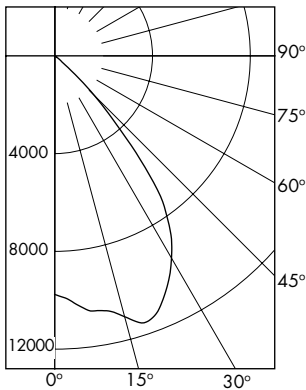
Test No. 17.02052

Test No. 17.02052

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

MC10LED16L35K8WFL45

LED Light Engine: 3500K, 80+ CRI
System Wattage: 156.1W
Fixture Delivered Lumens: 15920
Fixture Efficacy: 102.0
Spacing Criteria: 1.18



CANDELA DISTRIBUTION

DEG	CANDELA
0	9759
5	10205
15	11049
25	10699
35	7988
45	2298
55	132
65	41
75	16
85	3
90	0

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%FIXT
0-40	13876	87.2
0-60	15857	99.6
0-90	15920	100.0
0-180	15920	100.0

LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average - 0°
45°	86454
55°	5782
65°	2230
75°	1196
85°	377

COEFFICIENTS OF UTILIZATION Zonal Cavity Method

Room Cavity Ratio	% Effective Ceiling Cavity Reflectance														
	80%			70%			50%			30%			10%		
	20% Effective Floor Cavity Reflectance														
	% Wall Reflectance														
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	
1	113	110	107	105	111	108	105	103	104	102	100	100	99	97	
2	107	101	97	93	104	100	96	92	96	93	90	93	91	88	
3	101	94	88	84	99	92	87	83	90	85	82	87	83	80	
4	95	86	80	76	93	85	80	75	83	78	74	81	77	74	
5	89	80	74	69	88	79	73	69	77	72	68	75	71	67	
6	84	74	68	63	82	73	67	63	72	66	62	70	65	61	
7	79	69	62	58	78	68	62	57	67	61	57	66	61	57	
8	75	64	58	53	73	64	57	53	62	57	53	61	56	52	
9	70	6	53	49	69	59	53	49	58	53	49	57	52	48	
10	67	56	50	45	66	56	49	45	55	49	45	54	49	45	

MC10LED16L35K8WFL45

Test No. 17.02051

Test No. 17.02051

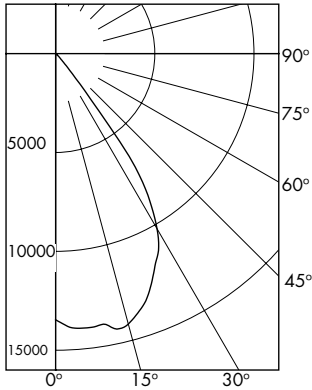
Tested at 25°C Ambient in accordance to IESNA LM-79-2008

MC10LED

10" HIGH LUMEN LED CYLINDER
120 OR 277V
0-10V DIMMING

MC10LED16L35K8FL35

LED Light Engine: 3500K, 80+ CRI
System Wattage: 156.4W
Fixture Delivered Lumens: 14833
Fixture Efficacy: 94.8
Spacing Criteria: 1.01



CANDELA DISTRIBUTION

DEG	CANDELA
0	13456
5	13940
15	14159
25	11850
35	7003
45	283
55	65
65	21
75	8
85	2
90	0

Test No. 17.02050

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

ZONAL LUMEN SUMMARY

ZONE	LUMENS
0-40	14436
0-60	14800
0-90	14833
0-180	14833

LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average - 0°
45°	12341
55°	3494
65°	1532
75°	953
85°	708

COEFFICIENTS OF UTILIZATION Zonal Cavity Method

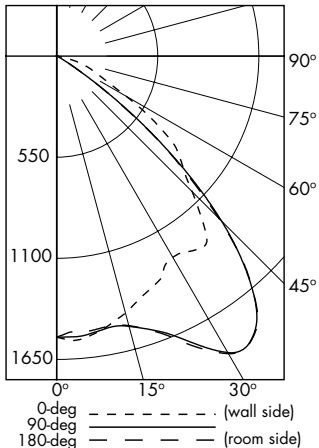
Room Cavity Ratio	% Effective Ceiling Cavity Reflectance																							
	80%				70%				50%				30%				10%							
	20% Effective Floor Cavity Reflectance																							
													% Wall Reflectance											
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10				
1	114	111	108	106	111	109	106	104	105	103	101	101	100	98	98	96	95	98	96	95				
2	108	103	99	96	106	102	98	95	98	95	93	95	93	91	93	91	89	93	91	89				
3	103	96	91	88	101	95	90	87	92	89	85	90	87	84	88	85	83	88	85	83				
4	98	90	85	80	96	89	84	80	87	82	79	85	81	78	83	80	77	83	80	77				
5	93	84	79	74	91	83	78	74	82	77	73	80	76	73	78	75	72	78	75	72				
6	88	79	73	69	86	78	73	69	77	72	68	75	71	68	74	70	67	74	70	67				
7	83	74	68	64	82	74	68	64	72	67	64	71	67	63	70	66	63	70	66	63				
8	79	70	67	60	78	69	64	60	68	63	59	67	63	59	66	62	59	66	62	59				
9	75	66	60	56	74	65	60	56	64	59	56	64	59	55	63	58	55	63	58	55				
10	72	62	56	52	71	62	56	52	61	56	52	60	55	52	59	55	52	59	55	52				

MC10LED16L35K8FL35

Test No. 17.02050

MC10LED6L35K8WW

LED Light Engine: 3500K, 80 CRI
System Wattage: 65.1W
Fixture Delivered Lumens: 3792
Fixture Efficacy: 58.2



CANDELA DISTRIBUTION

DEG	0	90	180
0	1529	1529	1529
5	1545	1529	1510
15	1447	1522	1518
25	1338	1714	1736
35	1292	1861	1864
45	1043	1269	1249
55	702	284	283
65	267	17	18
75	107	7	6
85	6	2	2
90	6	4	7

Test No. 16.03007

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

MULTIPLE UNITS											
1' 2' 3' 4'				UNITS ON 3' CENTER				UNITS ON 4' CENTER			

3' DISTANCE FIXTURE MOUNTED OUT FROM WALLS
FOOTCANDLE DISTRIBUTION ON WALL SURFACE (Direct Only)

DISTANCE FROM CEILING IN FEET	1'				2'				3'				4'			
	15	12	5	1	0	18	16	18	16	9	16	9	16	9	16	9
1	15	12	5	1	0	18	16	18	16	9	16	9	16	9	16	9
2	41	32	13	4	1	49	46	49	43	26	43	43	26	43	43	26
3	41	35	24	11	3	64	64	64	48	50	48	48	50	48	48	50
4	31	29	24	16	8	64	65	64	48	50	48	48	50	48	48	50
5	19	19	18	15	10	55	54	55	40	42	40	40	42	40	40	42
6	13	13	13	12	10	45	44	45	34	33	34	34	33	34	34	33
7	9	9	9	8	8	36	37	36	28	27	28	28	27	28	28	27
8	7	7	6	6	6	30	30	30	22	23	22	22	23	22	22	23
9	5	5	5	5	4	24	24	24	18	19	18	18	19	18	18	19

MC10LED6L35K8WW

Test No. 16.03007

LUMINANCE DATA IN CANDELA/SQ. METER

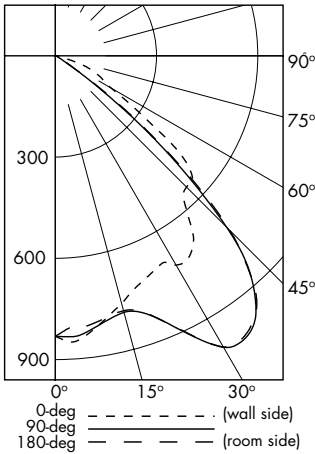
Angle in Vertical	0 DEG	90 DEG	180 DEG
45°	45468	55320	54448
55°	37727	15263	15209
65°	19475	1240	1313
75°	12744	834	715
85°	2122	707	707

MC10LED

10" HIGH LUMEN LED CYLINDER
120 OR 277V
0-10V DIMMING

MC10LED3L35K8WW

LED Light Engine: 3500K, 80 CRI
System Wattage: 32.6W
Fixture Delivered Lumens: 2009
Fixture Efficacy: 61.6



CANDELA DISTRIBUTION

DEG	0	90	180
0	831	831	831
5	843	831	810
15	760	787	782
25	699	902	900
35	705	1003	996
45	550	718	732
55	334	110	119
65	147	8	9
75	36	3	3
85	3	1	1
90	4	1	3

MULTIPLE UNITS

				UNITS ON 3' CENTER		UNITS ON 4' CENTER					
1'	2'	3'	4'								
3' DISTANCE FIXTURE MOUNTED OUT FROM WALLS											
FOOTCANDLE DISTRIBUTION ON WALL SURFACE (Direct Only)											
1	8	6	2	1	0	9	7	9	8	4	8
2	19	14	6	2	1	23	21	23	20	12	20
3	22	20	14	5	1	32	36	32	24	28	24
4	16	15	12	8	4	34	31	34	24	25	24
5	11	11	10	8	5	29	29	29	22	22	22
6	7	7	7	6	5	24	24	24	18	18	18
7	5	5	5	5	4	20	19	20	15	15	15
8	3	3	3	3	3	16	16	16	12	12	12
9	3	3	2	2	2	13	13	13	10	10	10

MC10LED3L35K8WW Test No. 16.03008

LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	0 DEG	90 DEG	180 DEG
45°	23976	31300	31910
55°	17950	5912	6395
65°	10722	584	656
75°	4288	357	357
85°	1061	354	354

Test No. 16.03008

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

DIMMING COMPATIBILITY

For more details and recommended dimmer list, see Dimming Compatibility Information on currentlighting.com/prescolite.

DMX

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

