

RAIL 4 RM4I

LED . PENDANT . INDIRECT



PART #:	
PREP BY:	DATE:
PROJECT:	
NOTES:	
APPROVAL SIGNATURE:	DATE (DD/MM/YYYY):

PERFORMANCE SUMMARY @ 3500K

		Meta Blanc (MB)
		L3
Lumens per foot	80 CRI	596
	90 CRI	522
Wattage per foot		6.1
Efficacy (lm/W)	80 CRI	99
	90 CRI	85
L70 Estimate (h)		≥ 60,000 hrs

See page 2 for the complete Light Level Performance chart.

FEATURES

- Efficacy up to 102 lm/W
- Suitable for dry or damp locations
- Integral drivers
- Option for daylight harvesting, occupancy sensing, dimming control and emergency lighting

ORDERING LOGIC

Example Part Number: RM41-1L35K-12-MB-W-L31-PA18-1-D-90

RM4I						MB					
1	2	3	4	5	6	7	8	9	10	11	12
1. SERIES RM4I	2. COLOR TEMP 1L30K 3000K 1L35K 3500K 1L40K 4000K 90 CRI is available under OPTIONS	3. LENGTH 2 2 ft 3 3 ft 4 4 ft 5 5 ft 6 6 ft 7 7 ft 8 8 ft 9 9 ft 10 10 ft 11 11 ft 12 12 ft RA Continuous Rows Replace "A" with length in feet selected on p2 C Custom Length* - None (leave space empty)	4. PATTERN ¹ GA Square GAxB Rectangle UAxBxC U-Shape LAxB L-Shape C Custom Pattern* - None (leave space empty) Standard Patterns Minimal Lengths Square: A=4 ft min. Rectangle: A=4 ft min, B=4 ft min. U-Shape: A=3 ft min, B=4 ft min, C=3 ft min. L-Shape: A=3 ft min, B=3 ft min. Custom Patterns* Lengths and a drawing of custom pattern are required on page 3 T-Shape, X/Cross Select corner: <input type="checkbox"/> Outside 90° <input type="checkbox"/> Inside 90° 				5. OPTICS MB Meta Blanc Meta Blanc: Opal diffuse lens	6. FINISH SA Satin Aluminum W White B Black C Custom Finish Specify RAL:			
7. LIGHT LEVEL / DRIVER L1 Select Driver below. L2 L3 See Light Level Performance chart on p2. L4	8. CIRCUITRY 1 1 Circuit EM Emergency / Night Light B Emergency Battery Pack ²	9. MOUNTING PAA Pendant Aircraft Cable PTA Pendant Aircraft Cable for T-bar Replace "A" with length (inches) selected below. Select Aircraft Cable Length, Canopy Finish & Power Cord Color below	10. VOLTAGE 1 120V 2 277V 3 347V 4 UNV (120 - 277V)	11. CONTROLS / SENSORS - None (leave space empty) D Wattstopper Daylight Sensor O Wattstopper Occupancy Sensor DO Wattstopper Daylight and Occupancy Sensors	12. OPTIONS 90 90 CRI, High R9 - None (leave space empty)						

*Consult factory. | ¹ Pattern record drawings showing mounting locations will be sent out upon order. | ² Battery operates 4ft sections only.

Select Driver:

- Factory option 0-10V, 10% dimming (Standard)
- Factory option 0-10V, 1% dimming
- LHE** Lutron H-Series Hi-lume 1% EcoSystem LED Driver
- LA2** Lutron A-Series Hi-lume 1% 2-wire LED Driver
- L5E** Lutron 5-Series EcoSystem LED Driver

Select Aircraft Cable Length:

Total adjustment range is 6" up & down for each standard length. All other lengths are considered custom unless otherwise stated.

Select:	Imperial (in)	Metric (mm)	Select:	Imperial (in)	Metric (mm)
<input type="checkbox"/>	12	305	<input type="checkbox"/>	54	1372
<input type="checkbox"/>	18	460	<input type="checkbox"/>	60	1525
<input type="checkbox"/>	24	610	<input type="checkbox"/>	72	1830
<input type="checkbox"/>	30	760	<input type="checkbox"/>	96	2440
<input type="checkbox"/>	36	915	<input type="checkbox"/>	120	3050
<input type="checkbox"/>	42	1067	<input type="checkbox"/>	144	3660
<input type="checkbox"/>	48	1220	<input type="checkbox"/>	Custom Length: _____	

Select Canopy Finish & Power Cord Color

Canopy	Power Cord
<input type="checkbox"/> White	<input type="checkbox"/> White
<input type="checkbox"/> Black	<input type="checkbox"/> Black*
<input type="checkbox"/> Custom Finish RAL: _____	

Light Level Performance

3500K, 80 CRI, 0-10V Dimming (Standard)

Light Level	Meta Blanc (MB)		
	Lumens per foot	Wattage per foot	Efficacy (lm/W)
L1	350	3.5	102
L2	438	4.4	100
L3	596	6.0	99
L4	1106	12.1	92

Lumen Adjustment Factor

Color Temp	80 CRI	90 CRI
3000K	0.984	0.880
3500K	1.000	0.875
4000K	1.032	0.879

Metalumen's light level performance metrics are subject to manufacturers component tolerances.

CONTINUOUS ROWS

Step 1) Indicate desired quantity of rows under the QTY column

Step 2) ← Pods → If applicable, select pod(s) per row to indicate desired Emergency lighting location. If a similar row requires a different Emergency lighting location, please fill out another sheet.

Record drawings for rows not represented here will be sent out upon order.

QTY	Nominal Length	Run Length Overall	Along / Start Length	Mid Length(s)	End Length
4'	1225 [48.2]	4			1213 [47.8]
8'	2442 [96.1]	8			2430 [95.7]
12'	3661 [144.1]	12			3650 [143.7]
16'	4881 [192.2]	8		8	2430 [95.7] 2438 [96.0]
20'	6100 [240.2]	12		8	3650 [143.7] 2438 [96.0]
24'	7319 [288.1]	12		12	3650 [143.7] 3658 [144.0]
28'	8538 [336.1]	8	12	8	2430 [95.7] 3658 [144.0] 2438 [96.0]
32'	9757 [384.1]	12	8	12	3650 [143.7] 2438 [96.0] 3658 [144.0]
36'	10977 [432.2]	12	12	12	3650 [143.7] 3658 [144.0] 3658 [144.0]
40'	12196 [480.2]	12	8, 8	12	3650 [143.7] 2438 [96.0] 2438 [96.0] 3658 [144.0]
44'	13415 [528.1]	12	12, 8	12	3650 [143.7] 3658 [144.0] 2438 [96.0] 3658 [144.0]
48'	14634 [576.1]	12	12, 12	12	3650 [143.7] 3658 [144.0] 3658 [144.0] 3658 [144.0]

LEGEND

- Standard (STD) Wire Entry Location (located 52mm from end on top of fixture)
- Emergency (EM) / Night Light Location
- EM or Battery Wire Entry Location (located 52mm from end on top of fixture)

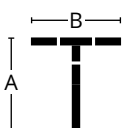
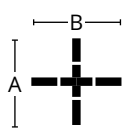
A = Distance Between Mounting Points

EM / Night Light and EM or Battery Wire Entry location in relation to pod selections:

Example 20 ft run

Refer to page 3 for Hanger information

PATTERNS

Select Pattern:	T-SHAPE (C)	X / CROSS (C)
Pattern Configuration		
Indicate Desired Lengths (ft)	A = B =	A = B =
Minimum Lengths	A = 3 ft B = 6 ft	A = 6 ft B = 6 ft

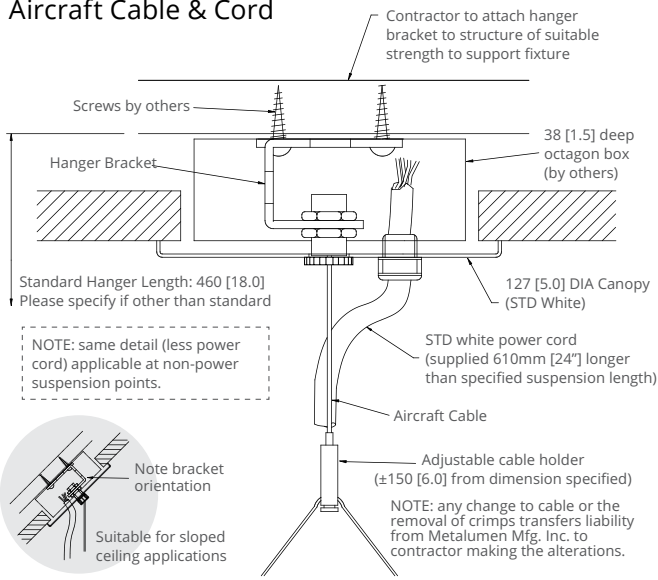
A pattern configuration drawing is required in the grid below

Record drawings will be sent out upon order showing mounting locations.

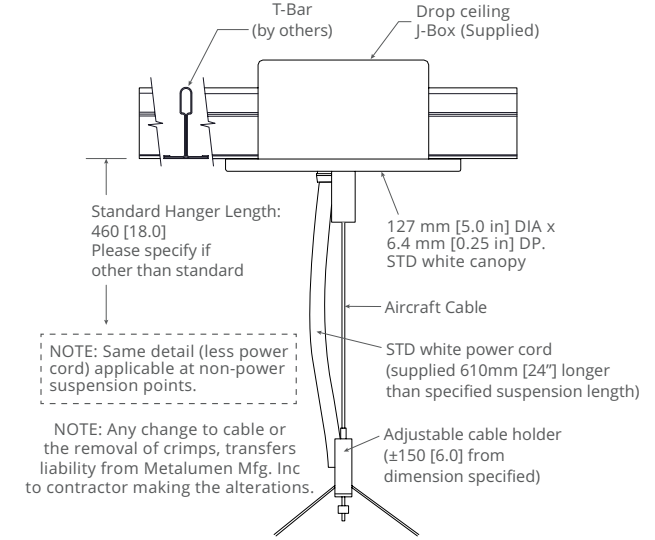


HANGER

Aircraft Cable & Cord



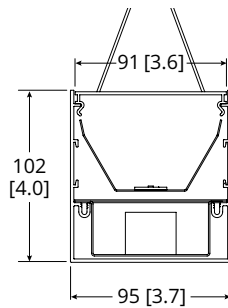
T-Bar Aircraft Cable & Cord



WIRING

Standard Wiring	Emergency Wiring	Emergency Battery Pack Wiring
<p>BLACK - LINE WHITE - NEUTRAL GREEN - GROUND RED - CAPPED/SW LEAD VIOLET - DIM(+) GREY - DIM(-)</p>	<p>BLACK - LINE WHITE - NEUTRAL GREEN - GROUND RED - CAP OFF</p>	<p>BLACK - LINE WHITE - NEUTRAL GREEN - GROUND RED - UNSWITCHED HOT</p>

CROSS SECTIONS



Meta Blanc

SPECIFICATIONS

Due to the Continuous Improvement Policy at Metalumen, we reserve the right to change our specifications without notice.

Housing: Rigid extruded aluminum body, 2.0mm (0.08") nominal wall thickness. Aluminum end caps.

Optical System: Metalumen luminaires are designed to utilize leading edge LED technology combined with luminaire optimized reflectors and our custom diffusers, resulting in industry leading optical performance.

CRI: 83+ for 3500K, 80 minimum for all CCTs in standard configurations.

Lumen Maintenance: Minimum 50,000h with TM-21 lumen maintenance of 85% @ 25°C ambient temperature (calculated based on IESNA LM-80-08 LED test data). L70: ≥ 60,000hrs.

Finish: Satin aluminum, white and black are standard finishes. For

custom finish, contact factory.

Weight: 2.1 kg/300mm [4.6 lb/ft]
Mounting: Aircraft cable yoke complete with a Quick-Grip field adjustable suspension system provides for quick and easy onsite alignment.

Electrical: Factory prewired with easy wire quick connect sections.

Drivers: Metalumen offers 0-10V

dimming as a standard on our entire LED product offering. Dimming range is 1%-100%. Power factor is > 90%. Class 2 rating. Drivers are integral.

Approvals: Certified to NRTL and IES testing standards. This product is cULus listed. RoHS compliant.

Environment: Suitable for dry or damp locations.

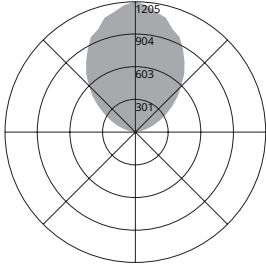
WARRANTY

Metalumen will warrant defective luminaires for 5 years from date of purchase. Warranty is valid if luminaire is installed and used according to specification. If defective, Metalumen will send replacement boards or drivers at no cost along with detailed replacement instructions and instructions on how to return defective components to Metalumen.

PHOTOMETRIC DATA - 3500K, 80 CRI

Optics: **Meta Blanc**
 IES File: **RM4I-1L35K-4-MB-L3**
 Lumens: **596/ft** Wattage: **6/ft**
 Efficacy: **99 lm/W**

PHOTOMETRIC CURVE
 100% Down



ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-20	0	0
0-30	0	0
0-40	0	0
0-60	0	0
0-80	0	0
0-90	0	0
10-90	0	0
20-40	0	0
20-50	0	0
40-70	0	0
60-80	0	0
70-80	0	0
80-90	0	0
90-110	119	5
90-120	332	13.9
90-130	663	27.8
90-150	1553	65
90-180	2387	100
110-180	2268	95
0-180	2388	100

COEFFICIENTS OF UTILIZATION

Zonal Cavity Method | Effective Floor Cavity Reflectance = .20

RC	80				70				50			
	RW	70	50	30	10	70	50	30	10	50	30	10
RCR												
0	95	95	95	95	81	81	81	81	56	56	56	
1	87	83	79	76	74	71	68	65	48	47	45	
2	79	72	66	62	67	62	57	53	42	40	37	
3	72	63	56	51	61	54	49	44	37	34	31	
4	65	56	48	43	56	48	42	37	33	29	26	
5	60	49	42	36	51	42	36	32	29	25	22	
6	55	44	36	31	47	38	32	27	26	22	19	
7	50	39	32	27	43	34	28	23	23	19	17	
8	47	35	28	23	40	30	24	20	21	17	14	
9	43	32	25	20	37	27	22	18	19	15	13	
10	40	29	22	18	34	25	19	16	17	14	11	

LUMINANCE DATA (CD/M²)

Vertical Angle	Horizontal Angle		
	0	45	90
45	6758	3654	2909
55	5592	2577	1949
65	4364	1635	1211
75	2843	811	552
85	1181	181	131

CANDELA DISTRIBUTION

Vertical Angle	Horizontal Angle				
	0	22.5	45	67.5	90
0	0	0	0	0	0
10	0	0	0	0	0
20	0	0	0	0	0
30	0	0	0	0	0
40	0	0	0	0	0
50	0	0	0	0	0
60	0	0	0	0	0
70	0	0	0	0	0
80	0	0	0	0	0
90	2	1	1	1	1
100	56	51	45	41	38
110	173	161	142	130	124
120	327	317	286	260	249
130	511	491	456	419	404
140	705	684	649	613	597
150	879	870	839	806	788
160	1008	1022	1001	982	976
170	1123	1121	1113	1123	1111
180	1205	1205	1205	1205	1205

Photometric performance is measured and scaled in accordance with IESNA LM-79.