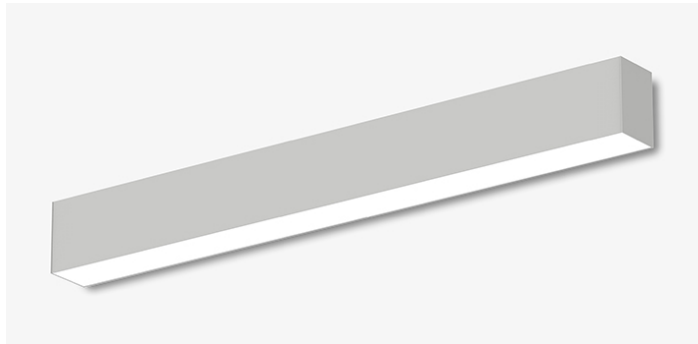


# RAIL 4 RM4DI

LED . WALL . INDIRECT / DIRECT



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

PERFORMANCE SUMMARY @ 3500K		MBMB	MBMD	MRMD	MM
L3					
Lumens per foot	80 CRI	1274	1290	1300	1352
	90 CRI	1115	1129	1138	1183
Distribution (Up / Down %)		51 / 49	53 / 47	51 / 49	51 / 49
Wattage per foot		12.1	12.1	12.1	12.1
Efficacy	80 CRI	106	107	107	112
	90 CRI	92	93	94	98
L70 Estimate (h)		≥ 60,000 hrs			

See page 2 for the complete Light Level Performance chart.

## FEATURES

- 3/4" drop lens with seamless lines of light without pixels or shadows
- Integral drivers
- Option for daylight harvesting, occupancy sensing, dimming control and emergency lighting
- Optional Illuminated by BIOS version for Healthy Lighting and Well Building Applications

## ORDERING LOGIC

Example Part Number: RM4DI-2L35K-12-MBMB-W-L31-W-1-D-90

RM4DI												
1	2	3	4	5	6	7	8	9	10	11		
1. SERIES <b>RM4DI</b>	2. COLOR TEMP <b>2L30K</b> 3000K <b>2L35K</b> 3500K <b>2L40K</b> 4000K  90 CRI is available under OPTIONS  BIOS is available under OPTIONS. See p2 for BIOS Naming Convention Reference	3. LENGTH <b>2</b> 2 ft <b>3</b> 3 ft <b>4</b> 4 ft <b>5</b> 5 ft <b>6</b> 6 ft <b>7</b> 7 ft <b>8</b> 8 ft <b>9</b> 9 ft <b>10</b> 10 ft <b>11</b> 11 ft <b>12</b> 12 ft <b>RA</b> Continuous Rows Replace "A" with length in feet selected on p3 <b>C</b> Custom Length* - None (leave space empty)	4. OPTICS <b>MBMB</b> Up: Meta Blanc   Down: Meta Blanc <b>MBMD</b> Up: Meta Blanc   Down: Drop Lens <b>MRMD</b> Up: Rise Lens   Down: Drop Lens <b>MM</b> Up: Meta Ice   Down: Meta Ice <b>BWMB</b> Up: Batwing   Down: Meta Blanc <sup>2</sup> <b>BWMD</b> Up: Batwing   Down: Drop Lens <sup>2</sup> <b>BWM</b> Up: Batwing   Down: Meta Ice <sup>2</sup>  <b>Meta Blanc, Rise &amp; Drop Lens:</b> Opal diffuse lens <b>Meta Ice:</b> High output semi-diffuse lens				5. FINISH <b>SA</b> Satin Aluminum <b>W</b> White <b>B</b> Black <b>C</b> Custom Finish Specify RAL:		6. LIGHT LEVEL / DRIVER <b>L1</b> <b>L2<sup>B</sup></b> <b>L3<sup>B</sup></b> <b>L4<sup>B</sup></b> Select Driver below. See Light Level Performance chart below.			
7. CIRCUITRY <b>1</b> 1 Circuit <b>EM</b> Emergency / Night Light <b>B</b> Emergency Battery Pack <sup>1</sup>	8. MOUNTING <b>W</b> Wall	9. VOLTAGE <b>1</b> 120 V <b>2</b> 277 V <b>3</b> 347 V <b>4</b> UNV (120 - 277V)	10. CONTROLS / SENSORS _ None (leave space empty) <b>D</b> Wattstopper Daylight Sensor <b>O</b> Wattstopper Occupancy Sensor <b>DO</b> Wattstopper Daylight and Occupancy Sensors			11. OPTIONS <b>90</b> 90 CRI, High R9 <b>BS</b> BIOS Static <b>BD</b> BIOS Dynamic _ None (leave space empty)						

\*Consult factory. | <sup>1</sup> Battery operates 4ft direct sections only. | <sup>2</sup> Batwing not available with BIOS. | <sup>B</sup> Available with BIOS\*

### Select Driver:

- 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

# Light Level Performance

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

Distribution % (Up / Down)	MBMB (UP: Meta Blanc / DOWN: Meta Blanc)			MBMD (UP: Meta Blanc / DOWN: Drop Lens)			MRMD (UP: Rise Lens / DOWN: Drop Lens)			MM (UP: Meta Ice / DOWN: Meta Ice)		
	Lumens per foot	Wattage per foot	Efficacy (lm/W)	Lumens per foot	Wattage per foot	Efficacy (lm/W)	Lumens per foot	Wattage per foot	Efficacy (lm/W)	Lumens per foot	Wattage per foot	Efficacy (lm/W)
	51 / 49			53 / 47			51 / 49			51 / 49		
L1	749	7.0	107	758	7.0	108	814	6.9	118	794	7.0	113
L2	937	8.9	106	949	8.8	107	956	8.8	109	997	8.9	113
L3	1274	12.1	106	1290	12.1	107	1300	12.1	108	1352	12.1	112
L4	2363	25.0	95	2393	25.0	96	2412	24.2	100	2639	24.2	109

## Standard Lumen Adjustment Factor

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

## BIOS 3500K

Distribution % (Up / Down)	MBMB (UP: Meta Blanc / DOWN: Meta Blanc)			MBMD (UP: Meta Blanc / DOWN: Drop Lens)			MRMD (UP: Rise Lens / DOWN: Drop Lens)			MM (UP: Meta Ice / DOWN: Meta Ice)			
	Lumens per foot	Wattage per foot	Efficacy (lm/W)	Lumens per foot	Wattage per foot	Efficacy (lm/W)	Lumens per foot	Wattage per foot	Efficacy (lm/W)	Lumens per foot	Wattage per foot	Efficacy (lm/W)	
	51 / 49			53 / 47			51 / 49			51 / 49			
Static	L2	1244	18.9	66	1309	18.9	69	1256	18.9	67	1413	18.9	75
	L3	1659	26.6	62	1746	26.6	66	1675	26.6	63	1885	26.6	71
	L4	2016	34.4	59	2122	34.4	62	2035	34.4	59	2291	34.4	67
Dynamic	L2	1119	18.9	59	1178	18.9	62	1130	18.9	59.9	1272	18.9	67
	L3	1493	26.6	56	1571	26.6	59	1507	26.6	56.6	1696	26.6	64
	L4	1814	34.4	53	1910	34.4	56	1832	34.4	53.3	2062	34.4	60

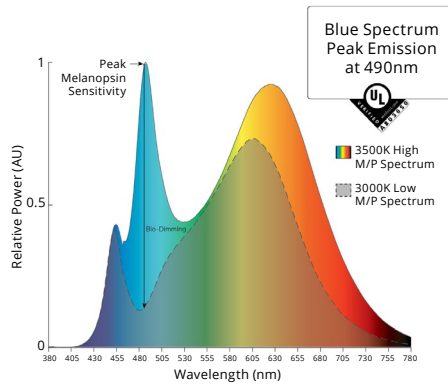
## BIOS Lumen Adjustment Factor (LAF)

Color Temp	LAF
3500K	1.00
4000K	1.05

## BIOS Naming Convention Reference

BIOS	Static	
	3500K	4000K
Dynamic	3500K	4000K
	35BIOSDY	40BIOSDY

\* EML or M/P is a ratio that describes the relative melanopic lux (M) versus the photopic lux (P). BIOS provides the following m/p values: 3000K = 0.7, 3500K = 0.8, 4000K = 0.9. \*\* COI - Cyanosis Observation Index.



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/Night Light/Battery 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	Alone / Start Length	Mid Length(s)	End Length	Asymmetric Reflector Light Throw Direction	ROWS IN PLAN VIEW
							Rows are for demonstration purposes only and are not to scale.
	4'	1225 [48.2]	4			↑	
	8'	2442 [96.1]	8			↑	
	12'	3661 [144.1]	12			↑	
	16'	4881 [192.2]	8	8		↑	
	20'	6100 [240.2]	12	8		↑	
	24'	7319 [288.1]	12	12		↑	
	28'	8538 [336.1]	8	12	8	↑	
	32'	9757 [384.1]	12	8	12	↑	
	36'	10977 [432.2]	12	12	12	↑	
	40'	12196 [480.2]	12	8, 8	12	↑	
	44'	13415 [528.1]	12	12, 8	12	↑	
	48'	14634 [576.1]	12	12, 12	12	↑	

#### LEGEND

- Standard (STD) Wire Entry Location  
(located on back of fixture either: 231 mm from end cap, or 229 mm from end of extrusion without end cap)
- Emergency (EM) / Night Light Location  
(4 ft sections)
- EM Wire Entry or Battery Wire Entry Location  
(located 231 mm from end on back of fixture).

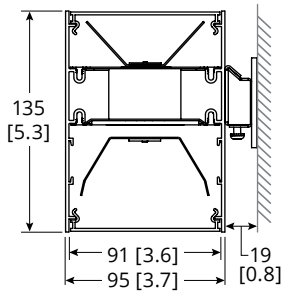
Wall bracket

= 231 [9.1] Distance between end-cap and bracket  
 = 458 [18.0] Distance between brackets at joiners  
 A = Distance between brackets  
 B = Extrusion lengths (includes end-caps)

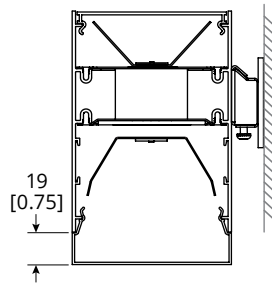
EM / Night Light and EM or Battery Wire Entry location in relation to pod selections:

Example 20 ft run

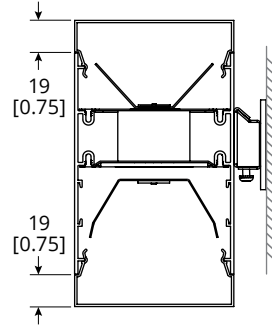
CROSS SECTIONS



UP: Meta Blanc, DOWN: Meta Blanc  
UP: Meta Ice, DOWN: Meta Ice



UP: Meta Blanc  
DOWN: Drop Lens



UP: Rise Lens  
DOWN: Drop Lens

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.  
**BIOS LED:** BIOS SkyBlue® solutions have a peak wavelength at 490nm to provide an enhanced spectrum with high M/P (melanopic to photopic)

ratios while also providing a low Cyanosis Observation Index (COI), making it ideally suited for Healthcare and Healthy Lighting projects. BIOS® SkyBlue® lighting solutions also contribute to satisfying Circadian Lighting Design Feature for WELL Building Standard v1 and v2.  
**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.  
**Mounting:** Mounting plate provided.  
**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:** All components are UL/ CSA/QPS recognized or listed. RoHS compliant. cULus listed.  
**Environment:** Suitable for dry or damp locations.  
*\*Standard drivers compatible with passive/ sinking dimmers. Please contact Metalumen if active/sourcing dimmer support is required.*

	DLC Approved RM4DI Products	RM4DI-2L35K-4-MM-xx-L1X-X-XX-[34]-X	RM4DI-2L35K-8-MM-xx-L1X-X-XX-[34]-X	For more Metalumen DLC Approved Products, visit the <a href="#">DLC Website</a>
		RM4DI-2L35K-4-MM-xx-L2X-X-XX-[34]-X	RM4DI-2L35K-8-MM-xx-L2X-X-XX-[34]-X	
		RM4DI-2L35K-4-MM-xx-L3X-X-XX-[34]-X	RM4DI-2L35K-8-MM-xx-L3X-X-XX-[34]-X	
		RM4DI-2L40K-4-MM-xx-L1X-X-XX-[34]-X	RM4DI-2L40K-8-MM-xx-L1X-X-XX-[34]-X	
		RM4DI-2L40K-4-MM-xx-L2X-X-XX-[34]-X	RM4DI-2L40K-8-MM-xx-L2X-X-XX-[34]-X	
		RM4DI-2L40K-4-MM-xx-L3X-X-XX-[34]-X	RM4DI-2L40K-8-MM-xx-L3X-X-XX-[34]-X	

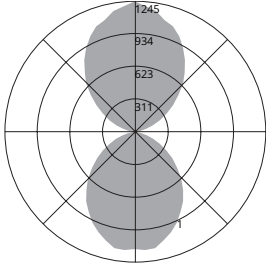
WARRANTY

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 Up: **Meta Blanc**  
 Optics Down: **Meta Blanc**  
 IES File: **RM4DI-2L35K-4-MBMB-L3**  
 Lumens: **1274/ft** Wattage: **12.1/ft**  
 Efficacy: **106 lm/W**

**PHOTOMETRIC CURVE**  
 51% Up  
 49% Down



**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Fixt
0-20	403	7.9
0-30	830	16.3
0-40	1309	25.6
0-60	2117	41.5
0-80	2470	48.4
0-90	2498	48.9
10-90	2391	46.8
20-40	907	17.8
20-50	1355	26.5
40-70	1045	20.5
60-80	353	6.9
70-80	115	2.3
80-90	28	0.5
90-110	132	2.6
90-120	375	7.3
90-130	751	14.7
90-150	1731	33.9
90-180	2607	51.1
110-180	2475	48.5
0-180	5105	100.0

**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	106	106	106	106	98	98	98	98	81	81	81	81
1	97	93	89	85	89	85	82	79	71	69	67	67
2	88	81	75	70	81	75	69	65	63	59	55	55
3	81	71	64	58	74	66	59	54	55	51	47	47
4	74	63	55	49	68	58	52	46	49	44	40	40
5	68	56	48	43	62	52	45	40	44	39	35	35
6	63	51	43	37	57	47	40	35	40	34	30	30
7	58	46	38	32	53	43	36	31	36	31	27	27
8	54	42	34	29	49	39	32	27	33	28	24	24
9	50	38	31	26	46	35	29	24	30	25	21	21
10	47	35	28	23	43	33	26	22	28	23	19	19

**CANDELA DISTRIBUTION**

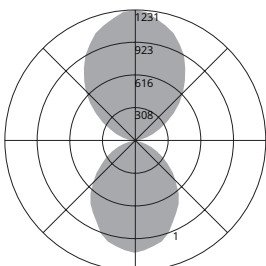
Vertical Angle	Horizontal Angle			
	0	22.5	45	67.5 90
0	1114	1114	1114	1114
10	1121	1090	1085	1101 1099
20	1013	1001	987	987 985
30	874	879	856	832 819
40	716	707	673	646 643
50	527	516	491	464 451
60	347	342	314	290 286
70	189	184	170	153 145
80	65	61	55	51 50
90	4	3	2	2 3
100	57	54	48	44 42
110	180	178	166	157 151
120	352	341	325	312 313
130	544	541	514	492 486
140	739	736	711	693 685
150	923	919	898	885 882
160	1068	1051	1052	1048 1033
170	1171	1151	1154	1149 1142
180	1245	1245	1245	1245 1245

**LUMINANCE DATA (CD/M<sup>2</sup>)**

Vertical Angle	Horizontal Angle		
	0	45	90
45	6785	3356	2698
55	5602	2338	1768
65	4291	1432	1063
75	2799	698	472
85	1096	154	111

Optics Up: **Meta Blanc**  
 Optics Down: **Drop Lens**  
 IES File: **RM4DI-2L35K-4-MBMD-L3**  
 Lumens: **1290/ft** Wattage: **12.1/ft**  
 Efficacy: **107 lm/W**

**PHOTOMETRIC CURVE**  
 54% Up  
 47% Down



**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Fixt
0-20	368	7.1
0-30	755	14.6
0-40	1187	23.0
0-60	1937	37.5
0-80	2333	45.1
0-90	2405	46.5
10-90	2308	44.7
20-40	819	15.8
20-50	1227	23.7
40-70	998	19.3
60-80	396	7.7
70-80	148	2.9
80-90	72	1.4
90-110	208	4.0
90-120	477	9.2
90-130	873	16.9
90-150	1877	36.3
90-180	2763	53.5
110-180	2555	49.4
0-180	5168	100.0

**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	119	119	119	119	116	116	116	116	111	111	111	111
1	110	106	102	98	107	103	100	97	99	96	94	94
2	101	93	87	82	98	91	86	81	88	83	79	79
3	93	83	75	69	90	81	74	69	78	72	67	67
4	85	74	66	60	83	73	65	59	70	64	58	58
5	79	67	58	52	77	66	58	52	63	56	51	51
6	73	60	52	46	71	59	51	46	58	51	45	45
7	68	55	47	41	66	54	46	41	53	46	40	40
8	63	50	42	37	62	50	42	37	49	41	36	36
9	59	47	39	33	58	46	38	33	45	38	33	33
10	56	43	35	30	55	43	35	30	42	35	30	30

**CANDELA DISTRIBUTION**

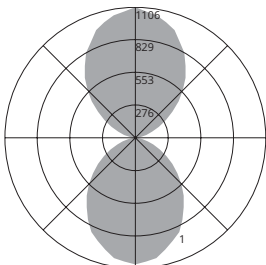
Vertical Angle	Horizontal Angle			
	0	22.5	45	67.5 90
0	1054	1054	1054	1054
10	1008	981	1016	1006 978
20	926	922	908	892 899
30	785	784	768	752 749
40	646	621	606	583 588
50	470	460	451	443 444
60	304	310	311	317 321
70	163	178	193	205 208
80	57	73	101	115 119
90	7	24	52	66 71
100	58	70	89	97 95
110	184	195	201	202 199
120	346	353	358	348 345
130	547	538	539	524 528
140	738	735	737	725 708
150	928	918	919	903 918
160	1076	1062	1062	1038 1058
170	1167	1158	1163	1166 1155
180	1231	1231	1231	1231 1231

**LUMINANCE DATA (CD/M<sup>2</sup>)**

Vertical Angle	Horizontal Angle		
	0	45	90
45	5863	2841	2359
55	4751	2033	1717
65	3676	1377	1175
75	2359	842	744
85	841	444	434

Optics Up: **Rise Lens**  
 Optics Down: **Drop Lens**  
 IES File: **RM4DI-2L35K-4-MRMD-L3**  
 Lumens: **1300/ft** Wattage: **12.1/ft**  
 Efficacy: **107 lm/W**

**PHOTOMETRIC CURVE**  
 51% Up  
 49% Down



**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Fixt
0-20	371	7.1
0-30	762	14.6
0-40	1202	23.1
0-60	1990	38.2
0-80	2446	47
0-90	2559	49.1
10-90	2461	47.3
20-40	832	16
20-50	1258	24.1
40-70	1062	20.4
60-80	455	8.7
70-80	181	3.5
80-90	114	2.2
90-110	289	5.5
90-120	569	10.9
90-130	944	18.1
90-150	1850	35.5
90-180	2648	50.9
110-180	2360	45.3
0-180	5207	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	107	107	107	107	99	99	99	99	83	83	83	83
1	97	93	89	85	89	85	82	79	72	69	67	67
2	88	81	75	69	81	75	69	65	63	59	55	55
3	81	71	64	58	74	66	59	54	56	51	47	47
4	74	63	55	49	68	58	51	46	49	44	40	40
5	68	56	48	42	62	52	45	39	44	39	34	34
6	63	50	42	36	57	47	40	34	40	34	30	30
7	58	46	38	32	53	42	35	30	36	31	27	27
8	54	41	34	28	49	39	32	27	33	28	24	24
9	50	38	30	25	46	35	29	24	30	25	21	21
10	47	35	28	23	43	32	26	22	28	23	19	19

**CANDELA DISTRIBUTION**

Vertical Angle	Horizontal Angle			
	0	22.5	45	67.5 90
0	1068	1068	1068	1068 1068
10	1030	1022	992	1012 966
20	926	911	909	903 889
30	797	795	782	761 756
40	638	637	631	611 607
50	465	477	477	474 479
60	306	319	346	351 364
70	161	190	228	247 256
80	60	92	140	168 174
90	9	45	99	130 135
100	48	82	136	169 175
110	154	181	228	257 270
120	299	316	350	380 388
130	479	482	485	509 518
140	664	658	654	656 649
150	830	828	816	813 802
160	970	957	949	956 951
170	1051	1059	1063	1046 1070
180	1106	1106	1106	1106 1106

**LUMINANCE DATA (CD/M<sup>2</sup>)**

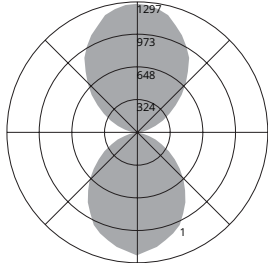
Vertical Angle	Horizontal Angle		
	0	45	90
45	5827	2793	2370
55	4725	2028	1720
65	3546	1436	1255
75	2330	949	904
85	946	658	676

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

PHOTOMETRIC DATA - 3500K, 80 CRI

Optics Up: **Meta Ice**  
 Optics Down: **Meta Ice**  
 IES File: **RM4DI-2L35K-4-MM-L3**  
 Lumens: **1352/ft** Wattage: **12.1/ft**  
 Efficacy: **112 lm/W**

**PHOTOMETRIC CURVE**  
 51% Up  
 49% Down



**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Fixt
0-20	423	7.8
0-30	874	16.1
0-40	1378	25.4
0-60	2227	41.1
0-80	2595	47.9
0-90	2624	48.5
10-90	2511	46.4
20-40	955	17.6
20-50	1428	26.4
40-70	1097	20.3
60-80	368	6.8
70-80	120	2.2
80-90	29	0.5
90-110	141	2.6
90-120	402	7.4
90-130	803	14.8
90-150	1855	34.3
90-180	2792	51.5
110-180	2651	48.9
0-180	5415	100.0

**COEFFICIENTS OF UTILIZATION**

Zonal Cavity Method | Effective Floor Cavity Reflectance = .20

RC	80			70			50				
	RW	70	50	30	10	70	50	30	10		
0	98	94	90	87	90	87	83	80	73	71	69
1	107	107	107	107	98	98	98	98	82	82	82
2	89	82	76	71	82	76	71	67	64	61	57
3	82	73	66	60	75	67	61	56	57	53	49
4	75	65	57	51	69	60	53	48	51	46	42
5	69	58	50	44	63	54	47	41	46	40	36
6	64	52	44	38	59	48	41	36	41	36	32
7	59	47	39	34	54	44	37	32	38	32	28
8	55	43	35	30	50	40	33	28	34	29	25
9	51	39	32	27	47	36	30	25	32	26	23
10	48	36	29	24	44	34	27	23	29	24	20

**CANDELA DISTRIBUTION**

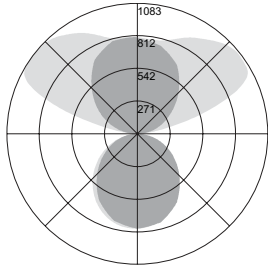
Vertical Angle	Horizontal Angle				
	0	22.5	45	67.5	90
0	1215	1215	1215	1215	1215
10	1150	1161	1160	1159	1134
20	1063	1053	1053	1039	1032
30	921	923	906	871	866
40	747	734	707	676	670
50	557	542	512	488	471
60	368	359	331	304	294
70	200	191	170	157	153
80	69	66	58	54	51
90	4	3	3	3	3
100	61	57	53	46	44
110	196	189	180	167	163
120	375	373	350	332	330
130	583	573	554	528	513
140	790	790	765	749	739
150	985	987	969	958	949
160	1130	1121	1116	1112	1105
170	1242	1231	1231	1251	1225
180	1276	1276	1276	1276	1276

**LUMINANCE DATA (CD/M<sup>2</sup>)**

Vertical Angle	Horizontal Angle		
	0	45	90
45	7113	3590	2830
55	5881	2452	1850
65	4429	1503	1098
75	2915	715	502
85	1038	152	110

Optics Up: **Batwing**  
 Optics Down: **Meta Blanc**  
 IES File: **RM4DI-2L35K-4-BWMB-L3**  
 Lumens: **1403/ft** Wattage: **12.0/ft**  
 Efficacy: **117 lm/W**

**PHOTOMETRIC CURVE**  
 62% Up  
 38% Down



**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Fixt
0-20	284	5.1
0-30	599	10.7
0-40	971	17.3
0-60	1678	29.9
0-80	2089	37.2
0-90	2150	38.3
10-90	2077	37
20-40	688	12.3
20-50	1063	18.9
40-70	960	17.1
60-80	412	7.3
70-80	158	2.8
80-90	61	1.1
90-110	481	8.6
90-120	1070	19.1
90-130	1709	30.4
90-150	2796	49.8
90-180	3461	61.7
110-180	2980	53.1
0-180	5612	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		
0	104	104	104	104	95	95	95	95	77	77	77
1	95	91	87	83	86	82	79	76	67	65	62
2	86	79	73	68	78	72	67	62	58	55	52
3	79	69	62	56	71	63	57	52	51	47	43
4	72	61	53	47	65	56	49	44	46	41	37
5	66	54	46	40	60	50	43	37	41	36	32
6	61	49	41	35	55	45	38	32	37	31	27
7	56	44	36	31	51	40	33	28	33	28	24
8	52	40	32	27	47	36	30	25	30	25	21
9	48	36	29	24	44	33	27	22	28	22	19
10	45	33	26	21	41	30	24	20	25	20	17

**CANDELA DISTRIBUTION**

Vertical Angle	Horizontal Angle				
	0	22.5	45	67.5	90
0	784	784	784	784	784
10	775	775	775	776	779
20	766	765	763	763	765
30	757	755	749	743	743
40	723	728	733	717	714
50	689	694	698	686	679
60	656	659	658	651	637
70	602	614	616	613	590
80	548	559	572	567	540
90	494	505	513	511	486
100	440	450	455	453	429
110	386	396	397	393	370
120	332	343	342	331	310
130	277	288	288	264	249
140	222	233	235	200	189
150	167	178	179	140	133
160	112	123	125	89	79
170	57	68	72	52	30
180	2	13	19	19	12

**LUMINANCE DATA (CD/M<sup>2</sup>)**

Vertical Angle	Horizontal Angle		
	0	45	90
45	6024	6260	5926
55	5807	5972	5563
65	5658	5885	5074
75	5566	5976	4425
85	5622	7123	2935

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