



Catalog Number
Notes
Type

Contractor Select™

# RB4 RB4S SWW5

RetroBasics™ 4" Switchable White LED Trim Kit

RetroBasics 4" LED trim kits provide the most economical solution for efficiently lighting a space using LED technology with virtually zero maintenance. This LED downlight is designed to work in 4" housings and can be used to provide general illumination in any room. Use as an option to replace legacy incandescent technology in an already installed housing or pair with the quick connect LED housings for a low-cost LED downlight solution. The LED trim maintains at least 70% light output for 50,000 hours.

**FEATURES:**

- 5 switchable white color temperatures to choose from via switch; 2700K, 3000K, 3500K, 4000K, 5000K CCT; 90 CRI. Switch is factory preset at 3000K CCT
- Dimmable flicker-free dimming from 100% to 10%
- Non-conductive thermal plastic trim ideal for dead front applications
- Low profile construction optimized for wider fixture spacings
- Baffle and smooth trim options available offering a choice of traditional or more modern aesthetic
- Trim features quick connect plug for easy electrical connection in seconds
- Retention springs are pre-installed and designed to fit into most 4" compatible recessed housings
- Optional field installable trim insert accessories to compliment any room available in three painted finishes including matte black, bronze and satin nickel

**APPLICATIONS:**

- Retrofit into existing recessed housings or use with quick connect housings for new construction or remodel applications
- Wet rated and air-loc: perfect for showers, bathrooms, and outdoor soffits
- For use with housings installed in IC rated applications (direct contact with insulation)



RB4



RB4S



E26 Socket Adapter Included



**CONTRACTOR PACK (CP6) ORDERING EXAMPLES:**

**Example 1: Ordered in Qty of 1**

Ordered Line: Qty: 1 RB4 SWW5 CP6 MW M2  
 \*Will receive 1 box with 6 units not individually packaged

**Example 2: Ordered in Qty of 2**

Ordered Line: Qty: 2 RB4 SWW5 CP6 MW M2  
 \*Will receive 1 master carton that includes 2 separate boxes with 6 units in each box not individually packaged

Catalog Number	UPC	Description	Replaces Up To	Lumens	Input Watts	CCT	CRI	Voltage	Finish	Dimming Protocol	Pallet qty.
RB4 SWW5 MW M6	00196182809736	4" Switchable White LED Baffle Trim Kit	65W Incandescent	625	7.2W	2700K-5000K	90	120V	White	100% to 10%	504
RB4S SWW5 MW M6	00196182750342	4" Switchable White LED Smooth Trim Kit	65W Incandescent	625	7.2W	2700K-5000K	90	120V	White	100% to 10%	840
RB4S SWW5 CP6 MW M2	00196182750359	4" Switchable White LED Smooth Trim Kit	65W Incandescent	625	7.2W	2700K-5000K	90	120V	White	100% to 10%	102



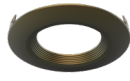
## ACCESSORIES

**TRIM INSERTS (for field configuration; ordered separately)**

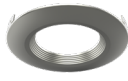
Series	Finish	Packaging
<b>RB4TRIM</b> 4" Baffle	<b>MB</b> Matte Black	<b>R6</b> Retail Pack of 6 Units
<b>RB4STRIM</b> 4" Smooth	<b>BRZ</b> Bronze	
	<b>SNP</b> Satin Nickel Point	



**MB baffle**



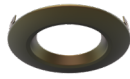
**BRZ baffle**



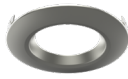
**SNP baffle**



**MB smooth**



**BRZ smooth**



**SNP smooth**



Pre-Install color finish trim insert over white 4" RetroBasics trim kit



Press down tabs on color finish trim insert to create final RetroBasics LED trim assembly

**Pairs perfectly with Juno housings for a complete downlight solution:**  
Order housings as separate catalog number.

### QC4 Series - New Construction Quick Connect LED Housing



### QC4R Series - Remodel Quick Connect LED Housing



### IC1FW LEDT24 - Firewall Fire Rated Quick Connect LED Housing



## PERFORMANCE DATA

	<b>RB4 /RB4S</b>
Input Voltage	120V
Input Power Typical	7.2W (+/-5%)
Power Factor	.9
Frequency	60 Hz
EMI/RFI	FCC Title 47, Part 15 Class B (consumer)
Minimum Starting Temp	-20°C (-4°F) minimum

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25° C

### LIGHTING PERFORMANCE DATA DONNÉES SUR LE RENDEMENT DE L'ÉCLAIRAGE

Light Appearance (CCT)  
Aspect de la lumière (CCT)

**2700K** soft white | blanc doux

609 lumens | 85 lumens per watt

**3000K** warm white | blanc chaud

618 lumens | 86 lumens per watt

**3500K** neutral white | blanc neutre

625 lumens | 87 lumens per watt

**4000K** cool white | blanc froid

622 lumens | 86 lumens per watt

**5000K** daylight | blanc neutre

606 lumens | 84 lumens per watt

Watts **7.2**

Color Accuracy (CRI) **90**  
Précision des couleurs (CRI)



## Specifications

### DOWNLIGHT LED TRIM KIT:

Molded thermal plastic housing with non-conductive trim frame offered in baffle or smooth design in matte white finish • Pressed-in diffusing lens optimized for concealing the LEDs from direct view in the on and off state • All-in-one design where LED light engine mounts directly to the trim for ease of installation into existing 4" recessed housings with medium base sockets or quick connect LED housings • Provided with push in springs • Optional field installable trim insert accessories to compliment any room available in three painted finishes including matte black, bronze and satin nickel

### LED LIGHT ENGINE:

LEDs are mounted directly to housing providing superior thermal management to ensure long life • Switchable white LED color temperature technology offers 2700K, 3000K, 3500K, 4000K, 5000K all in one trim • Switch factory set at 3000K • 90 CRI minimum • Accommodates 120 volts AC at 60Hz • Dimmable with most standard incandescent, magnetic low voltage and electronic low voltage dimmers • For a list of compatible dimmers, see [JUNORBSERIES-DIM](#)

### OPTICAL SYSTEM:

Regressed, diffused lens at end of mixing chamber to provide even light distribution for general illumination • Optimized for wide fixture spacings • Up to 625 nominal lumens is equivalent to 65W BR30 lamp

### ELECTRICAL CONNECTIONS:

Trim features quick connect plug installed as standard for installation into Juno quick connect housings with mating connector • Trim ships with a medium base socket adapter whip for installation into 4" incandescent housings with medium base sockets.

### LIFE:

Rated for 50,000 hours at 70% lumen maintenance.

### LABELS:

CSA certified to US and Canadian safety standards • ENERGY STAR® certified product • Suitable for wet location • Air-Loc certified in accordance with ASTM E283-2004 • NOM Certified • Can be used to comply with California Title 24 Part 6 High Efficacy LED light Source Requirements • T20 Certified.

### TESTING:

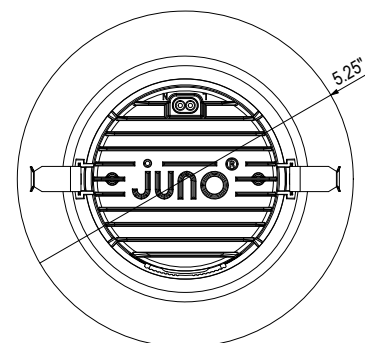
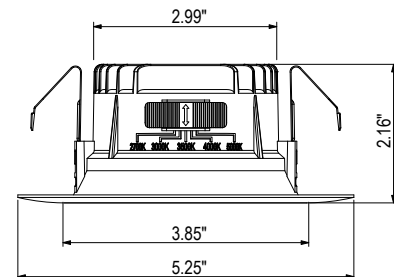
All reports are based on published industry procedures; field performance may differ from laboratory performance.

### WARRANTY:

5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: [www.acuitybrands.com/support/warranty/terms-and-conditions](http://www.acuitybrands.com/support/warranty/terms-and-conditions)

**Note:** Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

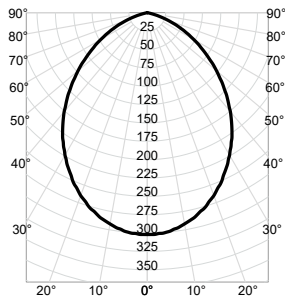
## Dimensions





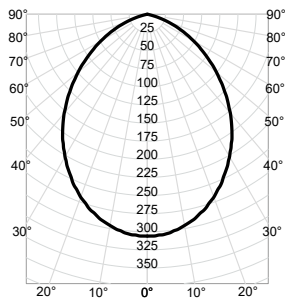
## PHOTOMETRICS

**RB4 SWW5 MW M6 - 2700K** Input Watts: 7.2, Delivered Lumens: 609, LPW: 84.6, S/MH: 1.11, Test No: 80119811- 001P1



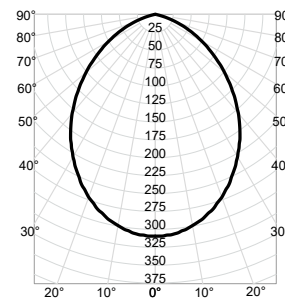
CP Summary				Zonal Lumen Summary				Coefficients of Utilization								Cone of Light			Luminance (cd/sq.m)	
0°	Zone	Lumens	% Fixture	pw	pf pc	80%		20%		70%	50%	30%	10%	50%	30%	10%	Mounting Height	Initial FC Center Beam	Beam Diameter	Average Luminance
						50%	30%	10%	50%											
0°	0° - 30°	220	36%	0	119	119	119	116	116	116	111	111	111	6.0	8.4	11.9	0°	39,672		
5°	0° - 40°	345	57%	1	107	104	101	105	102	99	101	98	96	8.0	4.7	15.8	45°	27,681		
15°	0° - 60°	547	90%	2	95	90	85	94	88	84	90	86	82	10.0	3.0	19.8	55°	22,215		
25°	0° - 90°	609	100%	3	85	78	73	84	77	72	81	75	71	12.0	2.1	23.7	65°	15,542		
35°	90° - 180°	0	0%	4	77	69	63	75	68	62	73	67	62	14.0	1.5	27.7	75°	5,076		
45°	0° - 180°	609	100%	5	69	61	55	68	61	55	66	59	54				85°	0		
55°	97			6	63	55	49	62	54	49	60	53	48							
65°	50			7	57	49	44	57	49	44	55	48	43							
75°	10			8	53	45	39	52	44	39	51	44	39							
85°	0			9	49	41	36	48	41	36	47	40	35							
90°	0			10	45	38	33	45	37	33	44	37	32							

**RB4 SWW5 MW M6 - 3000K** Input Watts: 7.2, Delivered Lumens: 617, LPW: 85.7, S/MH: 1.11, Test No: 80119811- 001P2



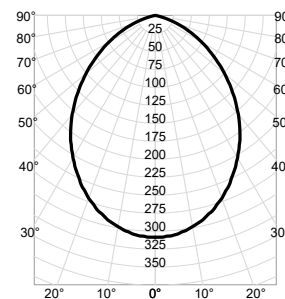
CP Summary				Zonal Lumen Summary				Coefficients of Utilization								Cone of Light			Luminance (cd/sq.m)	
0°	Zone	Lumens	% Fixture	pw	pf pc	80%		20%		70%	50%	30%	10%	50%	30%	10%	Mounting Height	Initial FC Center Beam	Beam Diameter	Average Luminance
						50%	30%	10%	50%											
0°	0° - 30°	223	36%	0	119	119	119	116	116	116	111	111	111	6.0	8.5	11.9	0°	40,193		
5°	0° - 40°	350	57%	1	107	104	101	105	102	99	101	98	96	8.0	4.8	15.8	45°	28,044		
15°	0° - 60°	555	90%	2	95	90	85	94	88	84	90	86	82	10.0	3.1	19.8	55°	22,507		
25°	0° - 90°	617	100%	3	85	78	73	84	77	72	81	75	71	12.0	2.1	23.7	65°	15,746		
35°	90° - 180°	0	0%	4	77	69	63	75	68	62	73	67	62	14.0	1.6	27.7	75°	5,142		
45°	0° - 180°	617	100%	5	69	61	55	68	61	55	66	59	54							
55°	98			6	63	55	49	62	54	49	60	53	48							
65°	51			7	57	49	44	57	49	44	55	48	43							
75°	10			8	53	45	39	52	44	39	51	44	39							
85°	0			9	49	41	36	48	41	36	47	40	35							
90°	0			10	45	38	33	45	37	33	44	37	32							

**RB4 SWW5 MW M6 - 3500K** Input Watts: 7.2, Delivered Lumens: 624, LPW: 86.7, S/MH: 1.11, Test No: 80119811- 001P3



CP Summary				Zonal Lumen Summary				Coefficients of Utilization								Cone of Light			Luminance (cd/sq.m)	
0°	Zone	Lumens	% Fixture	pw	pf pc	80%		20%		70%	50%	30%	10%	50%	30%	10%	Mounting Height	Initial FC Center Beam	Beam Diameter	Average Luminance
						50%	30%	10%	50%											
0°	0° - 30°	226	36%	0	119	119	119	116	116	116	111	111	111	6.0	8.6	11.9	0°	40,649		
5°	0° - 40°	354	57%	1	107	104	101	105	102	99	101	98	96	8.0	4.8	15.8	45°	28,362		
15°	0° - 60°	561	90%	2	95	90	85	94	88	84	90	86	82	10.0	3.1	19.8	55°	22,763		
25°	0° - 90°	624	100%	3	85	78	73	84	77	72	81	75	71	12.0	2.1	23.7	65°	15,924		
35°	90° - 180°	0	0%	4	77	69	63	75	68	62	73	67	62	14.0	1.6	27.7	75°	5,201		
45°	0° - 180°	624	100%	5	69	61	55	68	61	55	66	59	54							
55°	99			6	63	55	49	62	54	49	60	53	48							
65°	51			7	57	49	44	57	49	44	55	48	43							
75°	10			8	53	45	39	52	44	39	51	44	39							
85°	0			9	49	41	36	48	41	36	47	40	35							
90°	0			10	45	38	33	45	37	33	44	37	32							

**RB4 SWW5 MW M6 - 4000K** Input Watts: 7.2, Delivered Lumens: 622, LPW: 86.4, S/MH: 1.11, Test No: 80119811- 001P4

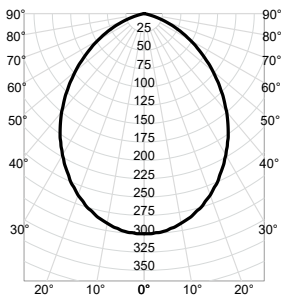


CP Summary				Zonal Lumen Summary				Coefficients of Utilization								Cone of Light			Luminance (cd/sq.m)	
0°	Zone	Lumens	% Fixture	pw	pf pc	80%		20%		70%	50%	30%	10%	50%	30%	10%	Mounting Height	Initial FC Center Beam	Beam Diameter	Average Luminance
						50%	30%	10%	50%											
0°	0° - 30°	225	36%	0	119	119	119	116	116	116	111	111	111	6.0	8.6	11.9	0°	40,519		
5°	0° - 40°	353	57%	1	107	104	101	105	102	99	101	98	96	8.0	4.8	15.8	45°	28,272		
15°	0° - 60°	559	90%	2	95	90	85	94	88	84	90	86	82	10.0	3.1	19.8	55°	22,690		
25°	0° - 90°	622	100%	3	85	78	73	84	77	72	81	75	71	12.0	2.1	23.7	65°	15,873		
35°	90° - 180°	0	0%	4	77	69	63	75	68	62	73	67	62	14.0	1.6	27.7	75°	5,184		
45°	0° - 180°	622	100%	5	69	61	55	68	61	55	66	59	54							
55°	99			6	63	55	49	62	54	49	60	53	48							
65°	51			7	57	49	44	57	49	44	55	48	43							
75°	10			8	53	45	39	52	44	39	51	44	39							
85°	0			9	49	41	36	48	41	36	47	40	35							
90°	0			10	45	38	33	45	37	33	44	37	32							



## PHOTOMETRICS

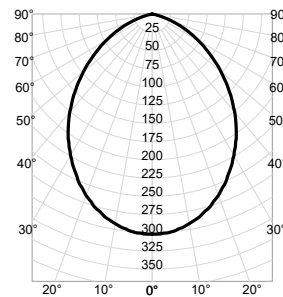
**RB4 SWW5 MW M6 - 5000K** Input Watts: 7.2, Delivered Lumens: 605, LPW: 84.0, S/MH: 1.11, Test No: 80119811- 001P5



CP Summary				Zonal Lumen Summary				Coefficients of Utilization										Cone of Light			Luminance (cd/sq.m)	
								pf	20%						Mounting Height	Initial FC Center Beam	Beam Diameter	Average Luminance				
								pc	80%		70%		50%		10%		10%		10%			
0°	Zone	Lumens	% Fixture	pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	6.0	8.3	11.9	0°	39,411	
0°	0° - 30°	219	36%	0	119	119	119	116	116	116	111	111	111	6.0	8.3	11.9	0°	39,411				
5°	0° - 40°	343	57%	1	107	104	101	105	102	99	101	98	96	8.0	4.7	15.8	45°	27,499				
15°	0° - 60°	544	90%	2	95	90	85	94	88	84	90	86	82	10.0	3.0	19.8	55°	22,070				
25°	0° - 90°	605	100%	3	85	78	73	84	77	72	81	75	71	12.0	2.1	23.7	65°	15,440				
35°	90° - 180°	0	0%	4	77	69	63	75	68	62	73	67	62	14.0	1.5	27.7	75°	5,042				
45°	0° - 180°	605	100%	5	69	61	55	68	61	55	66	59	54				85°	0				
55°	96			6	63	55	49	62	54	49	60	53	48									
65°	50			7	57	49	44	57	49	44	55	48	43									
75°	10			8	53	45	39	52	44	39	51	44	39									
85°	0			9	49	41	36	48	41	36	47	40	35									
90°	0			10	45	38	33	45	37	33	44	37	32									

Beam Angle: 89.3°  
Field Angle: 139.4°

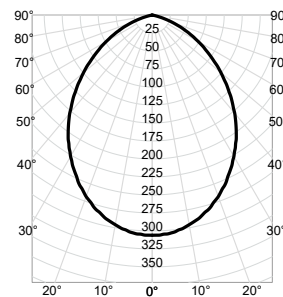
**RB4S SWW5 MW M6 - 2700K** Input Watts: 7.2, Delivered Lumens: 609, LPW: 84.6, S/MH: 1.11, Test No: 80119811- 001PA1



CP Summary				Zonal Lumen Summary				Coefficients of Utilization										Cone of Light			Luminance (cd/sq.m)	
								pf	20%						Mounting Height	Initial FC Center Beam	Beam Diameter	Average Luminance				
								pc	80%		70%		50%		10%		10%		10%			
0°	Zone	Lumens	% Fixture	pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	6.0	8.4	11.9	0°	39,672	
0°	0° - 30°	220	36%	0	119	119	119	116	116	116	111	111	111	6.0	8.4	11.9	0°	39,672				
5°	0° - 40°	345	57%	1	107	104	101	105	102	99	101	98	96	8.0	4.7	15.8	45°	27,881				
15°	0° - 60°	547	90%	2	95	90	85	94	88	84	90	86	82	10.0	3.0	19.8	55°	22,215				
25°	0° - 90°	609	100%	3	85	78	73	84	77	72	81	75	71	12.0	2.1	23.7	65°	15,542				
35°	90° - 180°	0	0%	4	77	69	63	75	68	62	73	67	62	14.0	1.5	27.7	75°	5,076				
45°	0° - 180°	609	100%	5	69	61	55	68	61	55	66	59	54				85°	0				
55°	97			6	63	55	49	62	54	49	60	53	48									
65°	50			7	57	49	44	57	49	44	55	48	43									
75°	10			8	53	45	39	52	44	39	51	44	39									
85°	0			9	49	41	36	48	41	36	47	40	35									
90°	0			10	45	38	33	45	37	33	44	37	32									

Beam Angle: 89.3°  
Field Angle: 139.4°

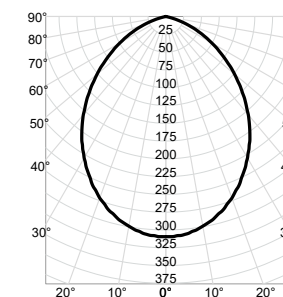
**RB4S SWW5 MW M6 - 3000K** Input Watts: 7.2, Delivered Lumens: 617, LPW: 85.7, S/MH: 1.11, Test No: 80119811- 001PA2



CP Summary				Zonal Lumen Summary				Coefficients of Utilization										Cone of Light			Luminance (cd/sq.m)	
								pf	20%						Mounting Height	Initial FC Center Beam	Beam Diameter	Average Luminance				
								pc	80%		70%		50%		10%		10%		10%			
0°	Zone	Lumens	% Fixture	pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	6.0	8.5	11.9	0°	40,193	
0°	0° - 30°	223	36%	0	119	119	119	116	116	116	111	111	111	6.0	8.5	11.9	0°	40,193				
5°	0° - 40°	350	57%	1	107	104	101	105	102	99	101	98	96	8.0	4.8	15.8	45°	28,044				
15°	0° - 60°	555	90%	2	95	90	85	94	88	84	90	86	82	10.0	3.1	19.8	55°	22,507				
25°	0° - 90°	617	100%	3	85	78	73	84	77	72	81	75	71	12.0	2.1	23.7	65°	15,746				
35°	90° - 180°	0	0%	4	77	69	63	75	68	62	73	67	62	14.0	1.6	27.7	75°	5,142				
45°	0° - 180°	617	100%	5	69	61	55	68	61	55	66	59	54				85°	0				
55°	98			6	63	55	49	62	54	49	60	53	48									
65°	51			7	57	49	44	57	49	44	55	48	43									
75°	10			8	53	45	39	52	44	39	51	44	39									
85°	0			9	49	41	36	48	41	36	47	40	35									
90°	0			10	45	38	33	45	37	33	44	37	32									

Beam Angle: 89.3°  
Field Angle: 139.4°

**RB4S SWW5 MW M6 - 3500K** Input Watts: 7.2, Delivered Lumens: 624, LPW: 86.7, S/MH: 1.11, Test No: 80119811- 001PA3



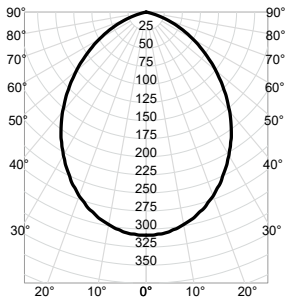
CP Summary				Zonal Lumen Summary				Coefficients of Utilization										Cone of Light			Luminance (cd/sq.m)	
								pf	20%						Mounting Height	Initial FC Center Beam	Beam Diameter	Average Luminance				
								pc	80%		70%		50%		10%		10%		10%			
0°	Zone	Lumens	% Fixture	pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	6.0	8.6	11.9	0°	40,649	
0°	0° - 30°	226	36%	0	119	119	119	116	116	116	111	111	111	6.0	8.6	11.9	0°	40,649				
5°	0° - 40°	354	57%	1	107	104	101	105	102	99	101	98	96	8.0	4.8	15.8	45°	28,362				
15°	0° - 60°	561	90%	2	95	90	85	94	88	84	90	86	82	10.0	3.1	19.8	55°	22,763				
25°	0° - 90°	624	100%	3	85	78	73	84	77	72	81	75	71	12.0	2.1	23.7	65°	15,924				
35°	90° - 180°	0	0%	4	77	69	63	75	68	62	73	67	62	14.0	1.6	27.7	75°	5,201				
45°	0° - 180°	624	100%	5	69	61	55	68	61	55	66	59	54				85°	0				
55°	99			6	63	55	49	62	54	49	60	53	48									
65°	51			7	57	49	44	57	49	44	55	48	43									
75°	10			8	53	45	39	52	44	39	51	44	39									
85°	0			9	49	41	36	48	41	36	47	40	35									
90°	0			10	45	38	33	45	37	33	44	37	32									

Beam Angle: 89.3°  
Field Angle: 139.4°



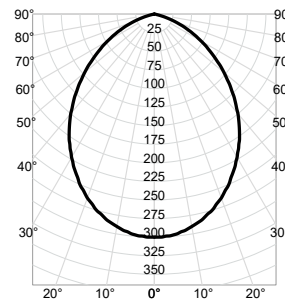
## PHOTOMETRICS

**RB4S SWW5 MW M6 - 4000K** Input Watts: 7.2, Delivered Lumens: 622, LPW: 86.4, S/MH: 1.11, Test No: 80119811- 001PA4



CP Summary				Zonal Lumen Summary				Coefficients of Utilization								Cone of Light			Luminance (cd/sq.m)	
0°	Zone	Lumens	% Fixture	pf	20%								Mounting Height	Initial FC Center Beam	Beam Diameter	Average Luminance				
				pc	50%	30%	10%	50%	30%	10%	50%	30%	10%							
0°	0° - 30°	225	36%	0	119	119	119	116	116	116	111	111	111	6.0	8.6	11.9	0°	40,519		
5°	0° - 40°	353	57%	1	107	104	101	105	102	99	101	98	96	8.0	4.8	15.8	45°	28,272		
15°	0° - 60°	559	90%	2	95	90	85	94	88	84	90	86	82	10.0	3.1	19.8	55°	22,690		
25°	0° - 90°	622	100%	3	85	78	73	84	77	72	81	75	71	12.0	2.1	23.7	65°	15,873		
35°	90° - 180°	0	0%	4	77	69	63	75	68	62	73	67	62	14.0	1.6	27.7	75°	5,184		
45°	0° - 180°	622	100%	5	69	61	55	68	61	55	66	59	54				85°	0		
55°	99			6	63	55	49	62	54	49	60	53	48	Beam Angle: 89.3°						
65°	51			7	57	49	44	57	49	44	55	48	43	Field Angle: 139.4°						
75°	10			8	53	45	39	52	44	39	51	44	39							
85°	0			9	49	41	36	48	41	36	47	40	35							
90°	0			10	45	38	33	45	37	33	44	37	32							

**RB4S SWW5 MW M6 - 5000K** Input Watts: 7.2, Delivered Lumens: 605, LPW: 84.0, S/MH: 1.11, Test No: 80119811- 001PA5



CP Summary				Zonal Lumen Summary				Coefficients of Utilization								Cone of Light			Luminance (cd/sq.m)	
0°	Zone	Lumens	% Fixture	pf	20%								Mounting Height	Initial FC Center Beam	Beam Diameter	Average Luminance				
				pc	50%	30%	10%	50%	30%	10%	50%	30%	10%							
0°	0° - 30°	219	36%	0	119	119	119	116	116	116	111	111	111	6.0	8.3	11.9	0°	39,411		
5°	0° - 40°	343	57%	1	107	104	101	105	102	99	101	98	96	8.0	4.7	15.8	45°	27,499		
15°	0° - 60°	544	90%	2	95	90	85	94	88	84	90	86	82	10.0	3.0	19.8	55°	22,070		
25°	0° - 90°	605	100%	3	85	78	73	84	77	72	81	75	71	12.0	2.1	23.7	65°	15,440		
35°	90° - 180°	0	0%	4	77	69	63	75	68	62	73	67	62	14.0	1.5	27.7	75°	5,042		
45°	0° - 180°	605	100%	5	69	61	55	68	61	55	66	59	54				85°	0		
55°	96			6	63	55	49	62	54	49	60	53	48	Beam Angle: 89.3°						
65°	50			7	57	49	44	57	49	44	55	48	43	Field Angle: 139.4°						
75°	10			8	53	45	39	52	44	39	51	44	39							
85°	0			9	49	41	36	48	41	36	47	40	35							
90°	0			10	45	38	33	45	37	33	44	37	32							