

**PHILIPS**

LED

MR16 and MRX16  
Dimmable



6.5W MR16



6.6W MRX16



7W MR16



8.5W MRX16

# Higher performance LED retrofits for accent lighting

Philips LED MR16 and MRX16 Dimmable Lamps are an ideal retrofit solution for spot and general lighting applications in the hospitality and retail industry.

The lamps provide a crisp and uniform beam and features optics engineered to eliminate multiple shadows.

# Philips LED MR16 and MRX16 Dimmable Lamps

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## Easy to experience

- Suitable for use in enclosed fixtures<sup>1</sup>
- 40,000-hr life<sup>2</sup> for 7W MR16 & 8.5W MRX16
- All lamps are dimmable with select models featuring a warm glow effect. The color temperature of the lamp transitions from 2700K to 2200K with dimming
- Crisp, uniform beam with optics engineered to eliminate multiple shadows
- No harmful UV radiation
- “Perfect fit” mechanical design fits most MR16 fixtures
- Patented intelligent driver enables broad compatibility with existing magnetic and electronic halogen transformers




















## Superior Performance

- Best-in-class flux, intensity and beam quality
- Minimal color shift & stable flux output throughout lifetime

(1,2, see next page for footnotes)

# Philips LED MR16 and MRX16 Dimmable Lamps

## Ordering, Electrical and Technical Data (Subject to change without notice)

Product Number	Model Number	Ordering Code	Equiv. Watts <sup>3</sup> (W)	Description	Bulb	Base	Lamp Watts (W)	Dim	LED Lifetime (Hrs)	Color Temp (K)	Lumens	CRI	Beam Angle	MBCP <sup>4</sup> (cd)
<b>Up to a 35W halogen MR16 Replacement<sup>3</sup></b>														
 45453-8	9290011278	6.5MR16/F25/2700-2200 DIM 12V	35	Spot 25° WarmGlow	MR16	GU5.3	6.5	Yes	25,000	2700 - 2200	410	80	25°	1750
 45454-6	9290011279	6.5MR16/F35/2700-2200 DIM 12V	35	Spot 35° WarmGlow	MR16	GU5.3	6.5	Yes	25,000	2700 - 2200	410	80	25°	900
 45478-5	9290011518	6.6MR16/F25/3000 DIM 12V	35	Spot 25° 3000K	MR16	GU5.3	6.6	Yes	25,000	3000	420	80	25°	1800
 45760-6	9290011522	6.6MR16/F35/3000 DIM 12V	35	Spot 35° 3000K	MR16	GU5.3	6.6	Yes	25,000	3000	420	80	35°	1000
<b>Up to a 50W halogen MR16 Replacement<sup>3</sup></b>														
 46152-5	9290011525	7MR16/LED/S15/827/DIM AF2	35	Spot 15° 2700K	MR16	GU5.3	7	Yes	40,000	2700	500	80	15°	3500
 46153-3	9290011526	7MR16/LED/S15/830/DIM AF2	35	Spot 15° 3000K	MR16	GU5.3	7	Yes	40,000	3000	500	80	15°	3600
 46154-1	9290011527	7MR16/LED/S15/840/DIM AF2	35	Spot 15° 4000K	MR16	GU5.3	7	Yes	40,000	4000	530	80	15°	3800
 46155-8	9290011528	7MR16/LED/F25/827/DIM AF2	50	Flood 25° 2700K	MR16	GU5.3	7	Yes	40,000	2700	500	80	25°	2400
 46156-6	9290011529	7MR16/LED/F25/830/DIM AF2	50	Flood 25° 3000K	MR16	GU5.3	7	Yes	40,000	3000	500	80	25°	2500
 46157-4	9290011530	7MR16/LED/F25/840/DIM AF2	50	Flood 25° 4000K	MR16	GU5.3	7	Yes	40,000	4000	530	80	25°	2600
 46158-2	9290011531	7MR16/LED/F35/827/DIM AF2	50	Flood 35° 2700K	MR16	GU5.3	7	Yes	40,000	2700	500	80	35°	1320
 46159-0	9290011532	7MR16/LED/F35/830/DIM AF2	50	Flood 35° 3000K	MR16	GU5.3	7	Yes	40,000	3000	500	80	35°	1350
 46160-8	9290011533	7MR16/LED/F35/840/DIM AF2	50	Flood 35° 4000K	MR16	GU5.3	7	Yes	40,000	4000	530	80	35°	1400
<b>Up to a 75W halogen MR16 Replacement<sup>3</sup></b>														
 45750-7	9290011498A	8.5MRX16/F25 2700 DIM AF	75	Flood 25° 2700K	MRX16	GU5.3	8.5	Yes	40,000	2700	635	80	25°	3100
 45751-5	9290011499A	8.5MRX16/F25 3000 DIM AF	75	Flood 25° 3000K	MRX16	GU5.3	8.5	Yes	40,000	3000	660	80	25°	3250
 45752-3	9290011500A	8.5MRX16/F25 4000 DIM AF	75	Flood 25° 4000K	MRX16	GU5.3	8.5	Yes	40,000	4000	710	80	25°	3350
 45753-1	9290011501A	8.5MRX16/F35 2700 DIM AF	75	Flood 35° 2700K	MRX16	GU5.3	8.5	Yes	40,000	2700	635	80	35°	1650
 45754-9	9290011502A	8.5MRX16/F35 3000 DIM AF	75	Flood 35° 3000K	MRX16	GU5.3	8.5	Yes	40,000	3000	660	80	35°	1700
 45755-6	9290011503A	8.5MRX16/F35 4000 DIM AF	75	Flood 35° 4000K	MRX16	GU5.3	8.5	Yes	40,000	4000	710	80	35°	1750

## Recommended Fixtures<sup>5</sup>

Fixture Type	Brand	Description	Model Number	Compatible Lamps
Track	Lightolier	MiniForm Shallow Ring MR16	9175N	a,b
		Alcyon Mini Cylinder MR16	22MC6	a,b,c
		MiniForm Cyclinder MR16	9173B	a,b,c
		Sof-Tech Low Voltage Spot MR16	6276B	a,b,c
		Sof-Tech Low Voltage Open Ring MR16	6275B	a,b,c
		Alcyon Step Spot MR16	22SS6	a,b,c
		Alcyon Mini Wall Washer MR16	22MW6	a,b
Alcyon Open Ring MR16	22OR6	a,b,c		
Recessed Downlight	Lightolier	3 3/4" Low Voltage Frame Non-IC 120V	2000LV	a,b,c
Key		a) 6.5W or 6.6W MR16, b) 7W MR16, c) 8.5W MRX16		

## Recommended Transformers

Fixture Type	Brand	Description
ETRZ40LEDC2	Philips Advance	LED Transformer (120 V 40W dimmable)

1. See Technical Application Guide for complete details. All lamps include an over temperature protection (OTP) feature that systematically reduces the lamp power and consequently its internal temperature should it be subjected to abnormally high ambient temperature conditions.

2. LED lifetime means the length of time (in hours) until half of the LED light sources maintain at least 70% of their initial lumen output (B50,L70).

3. Comparison based on the ENERGY STAR<sup>®</sup> Lamp Center Beam tool

- Predicted 35W / 15d halogen, Minimum Center Beam Intensity: 3,367
- Predicted 35W / 25° halogen, Minimum Center Beam Intensity: 1,601 cd
- Predicted 35W / 35° halogen, Minimum Center Beam Intensity: 906 cd
- Predicted 50W / 25° halogen, Minimum Center Beam Intensity: 2,323 cd
- Predicted 50W / 35° halogen, Minimum Center Beam Intensity: 1,315 cd
- Predicted 75W / 25° halogen, Minimum Center Beam Intensity: 2,583 cd
- Predicted 75W / 35° halogen, Minimum Center Beam Intensity: 1,463 cd

4. Based on photometric testing consistent with IES LM-79. Maximum Beam Candlepower.

5. Fixture lenses must be removed.

 This lamp is ENERGY STAR<sup>®</sup> Certified.

 ENERGY STAR<sup>®</sup> Test in progress.

 Light dims to a warm glow, similar to incandescent

# Philips LED MR16 and MRX16 Dimmable Lamps

## Shipping Data (Subject to change without notice)

Product Number	SKU UPC (0-46677)	Outer Bar Code (5-00-46677)	Case Qty.	Case Weight (lbs.)	Case Volume (cu. Ft.)	Pallet Qty	SKUs per Layer	Layers High	SKU Dimensions (L x W x H) (In.)	Case Dimensions (L x W x H) (In.)	Pallet Dimensions (L x W x H) (In.)
<b>Up to a 35W halogen MR16 Replacement</b>											
45453-8	45453-1	45453-6	10	1.35	0.06	6110	470	13	1.8 x 1.8 x 2.2	9.3 x 4 x 2.8	47.2 x 39.4 x 42.6
45456-6	45454-8	45454-3	10	1.35	0.06	6110	470	13	1.8 x 1.8 x 2.2	9.3 x 4 x 2.8	47.2 x 39.4 x 42.6
45475-5	45758-7	45758-2	10	1.35	0.06	6110	470	13	1.8 x 1.8 x 2.2	9.3 x 4 x 2.8	47.2 x 39.4 x 42.6
45760-6	45760-0	45760-5	10	1.35	0.06	6110	470	13	1.8 x 1.8 x 2.2	9.3 x 4 x 2.8	47.2 x 39.4 x 42.6
<b>Up to a 50W halogen MR16 Replacement</b>											
46152-5	46152-2	46152-7	10	1.35	0.06	6110	470	13	1.8 x 1.8 x 2.2	9.3 x 4 x 2.8	47.2 x 39.4 x 42.6
46153-3	46153-9	46153-4	10	1.35	0.06	6110	470	13	1.8 x 1.8 x 2.2	9.3 x 4 x 2.8	47.2 x 39.4 x 42.6
46154-1	46154-6	46154-1	10	1.35	0.06	6110	470	13	1.8 x 1.8 x 2.2	9.3 x 4 x 2.8	47.2 x 39.4 x 42.6
46155-8	46155-3	46155-8	10	1.35	0.06	6110	470	13	1.8 x 1.8 x 2.2	9.3 x 4 x 2.8	47.2 x 39.4 x 42.6
46156-6	46156-0	46156-5	10	1.35	0.06	6110	470	13	1.8 x 1.8 x 2.2	9.3 x 4 x 2.8	47.2 x 39.4 x 42.6
46157-4	46157-7	46157-2	10	1.35	0.06	6110	470	13	1.8 x 1.8 x 2.2	9.3 x 4 x 2.8	47.2 x 39.4 x 42.6
46158-2	46158-4	46158-9	10	1.35	0.06	6110	470	13	1.8 x 1.8 x 2.2	9.3 x 4 x 2.8	47.2 x 39.4 x 42.6
46159-0	46159-1	46159-6	10	1.35	0.06	6110	470	13	1.8 x 1.8 x 2.2	9.3 x 4 x 2.8	47.2 x 39.4 x 42.6
46160-8	46160-7	46160-2	10	1.35	0.06	6110	470	13	1.8 x 1.8 x 2.2	9.3 x 4 x 2.8	47.2 x 39.4 x 42.6
<b>Up to a 75W halogen MR16 Replacement</b>											
45750-7	45750-1	45750-6	10	1.35	0.06	6110	470	13	1.8 x 1.8 x 2.2	9.3 x 4 x 2.8	47.2 x 39.4 x 42.6
45751-5	45751-8	45751-3	10	1.35	0.06	6110	470	13	1.8 x 1.8 x 2.2	9.3 x 4 x 2.8	47.2 x 39.4 x 42.6
45752-3	45752-5	45752-0	10	1.35	0.06	6110	470	13	1.8 x 1.8 x 2.2	9.3 x 4 x 2.8	47.2 x 39.4 x 42.6
45753-1	45753-2	45753-7	10	1.35	0.06	6110	470	13	1.8 x 1.8 x 2.2	9.3 x 4 x 2.8	47.2 x 39.4 x 42.6
45754-9	45754-9	45754-4	10	1.35	0.06	6110	470	13	1.8 x 1.8 x 2.2	9.3 x 4 x 2.8	47.2 x 39.4 x 42.6
45755-6	45755-6	45755-1	10	1.35	0.06	6110	470	13	1.8 x 1.8 x 2.2	9.3 x 4 x 2.8	47.2 x 39.4 x 42.6

## Energy Saving Solution

<b>Estimated Lighting Costs Using a standard 75W MR16 Halogen Lamp</b>		
Present Wattage	75	W
× Annual operating hours	4,000	hrs
=	300,000	Watt-Hours
÷ 1,000	300	kWh per year
× kWh rate of \$0.11	\$33.00	per year
× 100 lamps	\$3,300.00	annual energy cost per space
<b>Estimated Lighting Costs Using a Philips 8.5W LED MRX16 Lamp</b>		
Present Wattage	8.5	W
× Annual operating hours	4,000	hrs
=	34,000	Watt-Hours
÷ 1,000	34	kWh per year
× kWh rate of \$0.11	\$3.74	per year
× 100 lamps	\$374.00	annual energy cost per space
<b>Total estimated annual savings<sup>†</sup></b>	<b>\$2,926.00</b>	
<sup>†</sup> Based on 100 lamps per space operating at 4,000 hours per year		

This example shows an application of 100 lamps accenting a space, operating 4,000 hours per year at a cost of \$0.11 per kWh. Your actual savings may vary depending on the energy costs in your geographic location.

Replacing 100 standard 75W MR16 halogen lamps with Philips 8.5W MR16 Dimmable LED Lamps can provide significant energy cost savings of \$2,960.00 per year! Potential savings from the reduction in HVAC costs as a result of using a low wattage lamp that emits less heat is an additional benefit not included in this example.



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Philips Lighting North America Corporation  
200 Franklin Square Drive, Somerset, NJ 08873  
Tel. 855-486-2216

Philips Lighting Canada Ltd.  
281 Hillmount Rd, Markham, ON, Canada L6C 2S3  
Tel. 800-668-9008