HALO[®]

The Halo RA4 LED Adjustable Gimbal series are retrofit LED Modules for 4" aperture recessed downlights. The RA4 gimbals feature adjustment of 35-degree tilt and up to 360-degree rotation. In addition the RA4 gimbals offer selection of narrow flood (NFL) and very wide flood (VWFL) models for beam distributions suitable for accent, task, grazing and general area lighting. The RA4 integral LED 120V driver is dimmable with most leading edge and trailing edge phase control dimmers.

Catalog #	Type
Project	
Comments	Date
Prepared by	

SPECIFICATION FEATURES

MECHANICAL

- Module includes LED, heat sink, reflector, lens optic, baffle reveal, and trim ring
- Durable die-cast aluminum construction
- Integrated heat sink design conducts heat away from the LED keeping the junction temperatures below specified maximums, even when installed in insulated ceiling environments
- Halo matte white paint finish
- 35-degree tilt
- Up to 360-degree rotation

Optics

NARROW FLOOD - NFL

- · Precision acrylic lens
- Optical design creates a clean, uniform 25-degree beam distribution

VERY WIDE FLOOD - VWFL

- Impact-resistant polycarbonate
- · Convex form for lamp-like appearance
- · Diffusing, wide beam for even illumination

MOUNTING

Friction Blades

- Precision formed spring blades secure module with friction fit to compatible housings.
- Friction blade design allows the RA4 to be installed in any position within the housing aperture (360 degrees)

Housing Compatibility

See Housing Compatibility

LED

- ColorTemperature (CCT) Options: 2700K, 3000K
- Color Rendering Index (CRI) 90
- LED is a chip on board design consisting of a multiple LED package with proximity phosphor coating to create one virtual white light source for a productive "cone of light"

ELECTRICAL

Power Connections

- LED connector is a non-screw base luminaire disconnect offering easy installation with the matching Halo H995 and H245 Series housings.
- LED Connector meets highefficacy luminaire requirements for a non-screw base socket, and where required to qualify as a high-efficacy luminaire. (California Title-24)
- The included E26 medium screw-base Edison adapter provides easy retrofit of incandescent housings (see Housing Compatibility)*

Ground Connection

• Separate grounding cable included on the module for attachment to the housing during installation.

LED Driver

- Dimmable driver is a 120 Volt, high efficiency, electronic power supply providing DC power to the LED.
- Driver meets FCC EMI/RFI Consumer Level limits for use in residential and commercial installations.
- Driver features high power factor, low THD, and has integral thermal protection in the event of over temperature or internal failure.
- Driver mounts externally to the module, allowing future replacement, if needed.

Dimming

• Designed for continuous dimming capability to nominally 5% with many 120V Leading Edge (LE) and Trailing Edge (TE) phase control dimmers. Dimming to 5% is best assured using dimmers with low end trim adjustment. Consult dimmer manufacturer for compatibility and conditions of use. (Note some dimmers require a neutral in the wallbox.)

Warrantv

Eaton provides a five year limited warranty on RA56 LED.

Compliance Labels

- UL/cUL Listed 1598 Luminaire (with listed Halo housings)
- UL Classified (with other housings - see Housing Compatibility)
- UL/cUL Listed for Damp Location
- May be installed in housings in direct contact with air permeable insulation** and combustible material
- IP ingress protection rating NFL models: IP25 VWFL models: IP34

Qualification

- ENERGY STAR® qualified residential and commercial*
- · Can be used for State of California Title 24 high efficacy luminaire compliance*
- Can be used for International **Energy Conservation Code** (IECC) high efficacy luminaire Compliance

IC (Insulated Ceiling)

Listed UL/cUL 1598 with compatible housings, may be used to meet insulated ceiling** requirements such as:

- International Energy Conservation Code (IECC)
- New York State Energy Conservation Construction Code (NY-ECCC)
- State of California Title 24 "Recessed Luminaires in Insulated Ceilings."



RA4 LED Very Wide Flood (VWFL)

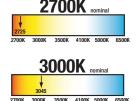


RA4 LED Narrow Flood (NFL)

4-Inch **Adjustable Gimbals All-Purpose Recessed Retrofit Modules**

FOR USE IN INSULATED **CEILING AND NON-INSULATED CEILING RATED HOUSINGS**

HIGH EFFICACY LED WITH INTEGRAL DRIVER -**DIMMABLE**















Refer to ENERGY STAR® Qualified Products List Can be used to comply with California Title 24 High Efficacy requirements.

Certified to California Appliance Efficiency Database Indoor LED nominal CCT of 4000K or less

^{*}Qualified and compliant. Refer to ENERGY STAR® Qualified Products List and CEC (T24) Appliance Database for listings

^{**}Not for use with housings in direct contact with spray foam insulation.

page 2 RA4 Series

ENERGY DATA

Minimum Starting Temp: -30°C (-22°F)

EMI/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer)

Sound Rating: Class A standards
Input Voltage: 120V

Power Factor: >0.90
Input Frequency: 50/60Hz

THD: <20%
Input Power: 10W

Driver-Safety Agency Approvals:

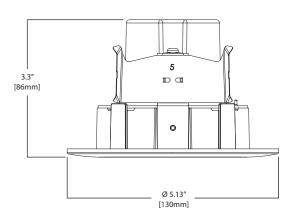
- UL60950-1 Recognized
- LPS output
- UL8750 Compliant

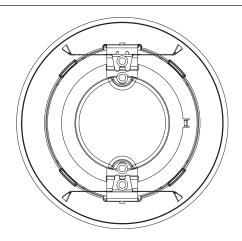
Maximum IC (Insulated Ceiling) Ambient Continuous Operating Temperature: 25°C (77°F)

Maximum Non-IC (NON-Insulated Ceiling) Ambient Continuous Operating Temperature 40°C (104°F)

DIMENSIONS

Input Current: 85mA





LIGHTING FACTS

RA406927WH

2700K Source VWFL Beam



RA406930WH

3000K Source VWFL Beam



RA406927NFLWH

2700K Source NFL Beam



RA406930NFLWH

3000K Source NFL Beam



For further information refer to the Lighting Facts website at http://lightingfacts.com/.



page 3 **RA4 Series**

ORDERING INFORMATION

SAMPLE NUMBER: RA406930WH Complete unit includes RA4 LED and a compatible 4" housing; ordered separately.

RA4 Series	Accessory (order separately)
Very Wide Flood - VWFL Models RA406927WH= 4" LED Adjustable Gimbal, 90CRI, 2700K, White, Very Wide Flood RA406930WH= 4" LED Adjustable Gimbal, 90CRI, 3000K, White, Very Wide Flood	HE26LED=Replacement screw base adapter (one included with unit)
Narrow Flood - NFL Models RA406927NFLWH= 4" LED Adjustable Gimbal, 90CRI, 2700K, White, Narrow Flood RA406930NFLWH= 4" LED Adjustable Gimbal, 90CRI, 3000K, White, Narrow Flood	
California non-E26 Models SLD405927WH-CA SLD405930WH-CA SSLD405935WH-CA SSLD405940WH-CA	

H995ICAT= 4" LED Insulated Ceiling, AIR-TITE New Construction Housing with LED luminaire connector (high efficacy compliant) H995RICAT= 4" LED Insulated Ceiling, AIR-TITE Remodel Housing with LED luminaire connector (high efficacy compliant)

HOUSING COMPATIBILITY

The RA4 is UL Listed in Halo and All-Pro recessed housings, and is UL Classified for use with any 4 inch diameter recessed housing constructed of steel or aluminum with an internal volume that exceeds 62.3 in³ in addition to those noted below:

HALO	Recessed Can Size	Catalog Number		
LED	4"	H995ICAT, H995RICAT, H245ICAT, H245RICAT		
Compatible Halo Incandescent E26 Screwbase Housings				
HALO Recessed Can Size		Catalog Number		



page 4 RA4 Series

PHOTOMETRY

RA406927WH

Reflector Beam Angle = VWFL Beam (Very Wide Flood)

CCT = 2700K Spacing Criteria = 1.18 Lumens per Watt = 60 Lm/W Test No. P121906 Test Model: RA406927WH

Cone of Light Footcandles 0 deg Aiming Angle Horizontal Illuminance on Floor			
Distance to	Initial Nadir Beam (ft.)		n (ft.)
Illuminated Plane	Footcandles	L Length	W Width
5.5'	9.7	6.4	6.4
7'	6	8.2	8.2
8'	4.6	9.4	9.4
9'	3.6	10.6	10.6
10'	2.9	11.8	11.8

Candlepower Distribution		
	Eyeball at 0-degrees	
110	99	
220	4	
330	0° 15° 30°	

Candela E	Distribution
Degrees Vertical	Candela
0*	293
5	293
15	283
25	257
35	206
45	144
55	79
65	40
75	18
85	6
90	0
	*CBCP

Luminance		
(Average Candela/M²)		
Degree	Avg. 0° Luminance	
45	43944	
55	29652	
65	20532	
75	15132	
85	14648	

Cone of Light Footcandles 35 deg Aiming Angle Vertical Illuminance on Wall				
Distance to Initial Nadir		Beam (ft.)		
Illuminated Plane	minated Footcandles	L Length	W Width	СВ
2'	43.5	2.1	2.4	2.9
3'	19.3	3.2	3.6	4.3
4'	10.9	4.2	4.8	5.7
5'	7	5.3	6	7.1
6'	4.8	6.4	7.4	8.6
8'	2.7	8.6	9.8	11.4
10'	1.7	10.8	12.2	14.3

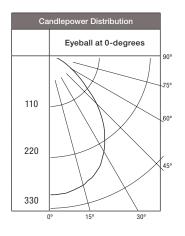
Zonal Lumen Summary			
Zone	Lumens	% Fixture	
0-30	225	37.4	
0-40	354	58.9	
0-60	534	89.0	
0-90	600	100	

RA406930WH

Reflector Beam Angle = VWFL Beam (Very Wide Flood)

CCT = 3000K Spacing Criteria = 1.18 Lumens per Watt = 61.5 Lm/W Test No. P121908 Test Model: RA406930WH

0 deg Aiming Angle Horizontal Illuminance on Floor				
Distance to	Initial Nadir	Beam (ft.)		
Illuminated Plane	Footcandles	L Length	W Width	
5.5'	9.9	6.4	6.4	
7'	6.1	8.2	8.2	
8'	4.7	9.4	9.4	
9'	3.7	10.6	10.6	
10'	3	11.8	11.8	



Candela Distribution	
Degrees Vertical	Candela
0*	301
5	300
15	290
25	263
35	211
45	147
55	81
65	41
75	19
85	6
90	0
	*CBCP

	Luminance (Average Candela/M²)	
	Degree	Avg. 0° Luminance
	45	45015
	55	30407
	65	21044
	75	15551
	85	14896

Cone of Light Footcandles 35 deg Aiming Angle Vertical Illuminance on Wall				
Distance to	Initial Nadir	Bear	n (ft.)	
Illuminated Plane	Footcandles	L Length	W Width	СВ
2'	44.6	2.1	2.4	2.9
3'	19.8	3.2	3.6	4.3
4'	11.1	4.2	4.8	5.7
5'	7.1	5.3	6	7.1
6'	5	6.4	7.4	8.6
8'	2.8	8.6	9.8	11.4
10'	1.8	10.8	12.2	14.3

Zonal Lumen Summary				
Zone	Lumens	% Fixture		
0-30	230	37.4		
0-40	362	58.9		
0-60	548	89.0		
0-90	615	100		





page 5 **RA4 Series**

PHOTOMETRY

RA406927NFLWH

Reflector Beam Angle = NFL Beam (Narrow Flood)

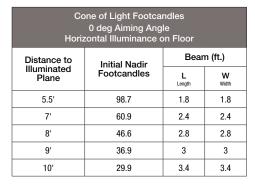
CCT = 2700K

Spacing Criteria = 0.35

Lumens per Watt = 64 Lm/W

Test No. P121904

Test Model: RA406927NFLWH



Ca	andlepower Distribution	Candela D	istribution
	Eyeball at 0-degrees	Degrees Vertical	Candela
	90"	0*	2985
	75°	5	2531
1000		15	836
	60°	25	223
		35	62
2000		45	27
	45°	55	14
		65	6
3000		75	2
(0° 15° 30°	85	0
		90	0

Luminance		
(Average Candela/M²)		
Degree	Avg. 0° Luminance	
45	6559	
55	3723	
65	1726	
75	577	
85	168	

Cone of Light Footcandles 35 deg Aiming Angle Vertical Illuminance on Wall				
Distance to	Initial Nadir	Beam (ft.)		
Illuminated Plane	Footcandles	L Length	W Width	СВ
2'	168	1.7	1	2.9
3'	74.7	2.6	1.6	4.3
4'	42	3.5	2.2	5.7
5'	26.9	4.4	2.8	7.1
6'	18.7	5.3	3.4	8.6
8'	10.5	7.1	4.4	11.4
10'	6.7	8.9	5.6	14.3

Zonal Lumen Summary			
Zone	Lumens	% Fixture	
0-30	556	86.9	
0-40	598	93.4	
0-60	631	98.7	
0-90	640	100	

RA406930NFLWH

Reflector Beam Angle = NFL Beam (Narrow Flood)

CCT = 3000K

Spacing Criteria = 0.35

Lumens per Watt = 64 Lm/W

Test No. P121905

Test Model: RA406930NFLWH

Cone of Light Footcandles 0 deg Aiming Angle Horizontal Illuminance on Floor				
Distance to	Initial Nadir	Bear	m (ft.)	
Illuminated Plane	Footcandles	L Length	W Width	
5.5'	98.7	1.8	1.8	
7'	60.9	2.4	2.4	
8'	46.6	2.8	2.8	
9'	36.9	3	3	

29.9

3.4

3.4

*CBCP

Candlepower Distribution			
	Eyeball at 0-degrees		
		90°	
		75°	
1000		60°	
		bU°	
2000			
		45°	
3000			
	0° 15° 30°		

Candela Distribution		
Degrees Vertical	Candela	
0*	2985	
5	2531	
15	836	
25	223	
35	62	
45	27	
55	14	
65	6	
75	2	
85	0	
90	0	

10'

andela D	istribution	Lum	inance
egrees ertical	Candela	(Average	Candela/M²)
0*	2985	Degree	Avg. 0° Luminance
5	2531	45	6559
15	836	55	3723
25	223	65	1726
35	62	75	577
45	27	85	168
55	14		

Cone of Light Footcandles 35 deg Aiming Angle Vertical Illuminance on Wall				
Distance to	Initial Nadir	Bear	Beam (ft.)	
Illuminated Plane	Footcandles	L Length	W Width	СВ
2'	168	1.7	1	2.9
3'	74.7	2.6	1.6	4.3
4'	42	3.5	2.2	5.7
5'	26.9	4.4	2.8	7.1
6'	18.7	5.3	3.4	8.6
8'	10.5	7.1	4.4	11.4
10'	6.7	8.9	5.6	14.3

Zonal Lumen Summary				
Zone	Lumens	% Fixture		
0-30	556	86.9		
0-40	598	93.4		
0-60	631	98.7		
0-90	640	100		





HALO[®]

The Halo RA4 LED Adjustable Gimbal series are retrofit LED Modules for 4" aperture recessed downlights. The RA4 gimbals feature adjustment of 35-degree tilt and up to 360-degree rotation. In addition the RA4 gimbals offer selection of narrow flood (NFL) and very wide flood (VWFL) models for beam distributions suitable for accent, task, grazing and general area lighting. The RA4 integral LED 120V driver is dimmable with most leading edge and trailing edge phase control dimmers.

Catalog #	Type
Project	
Comments	Date
Prepared by	

SPECIFICATION FEATURES

MECHANICAL

- Module includes LED, heat sink, reflector, lens optic, baffle reveal, and trim ring
- Durable die-cast aluminum construction
- Integrated heat sink design conducts heat away from the LED keeping the junction temperatures below specified maximums, even when installed in insulated ceiling environments
- Halo matte white paint finish
- 35-degree tilt
- Up to 360-degree rotation

Optics

NARROW FLOOD - NFL

- · Precision acrylic lens
- Optical design creates a clean, uniform 25-degree beam distribution

VERY WIDE FLOOD - VWFL

- Impact-resistant polycarbonate
- · Convex form for lamp-like appearance
- · Diffusing, wide beam for even illumination

MOUNTING

Friction Blades

- Precision formed spring blades secure module with friction fit to compatible housings.
- Friction blade design allows the RA4 to be installed in any position within the housing aperture (360 degrees)

Housing Compatibility

See Housing Compatibility

LED

- ColorTemperature (CCT) Options: 2700K, 3000K
- Color Rendering Index (CRI) 90
- LED is a chip on board design consisting of a multiple LED package with proximity phosphor coating to create one virtual white light source for a productive "cone of light"

ELECTRICAL

Power Connections

- LED connector is a non-screw base luminaire disconnect offering easy installation with the matching Halo H995 and H245 Series housings.
- LED Connector meets highefficacy luminaire requirements for a non-screw base socket, and where required to qualify as a high-efficacy luminaire. (California Title-24)
- The included E26 medium screw-base Edison adapter provides easy retrofit of incandescent housings (see Housing Compatibility)*

Ground Connection

• Separate grounding cable included on the module for attachment to the housing during installation.

LED Driver

- Dimmable driver is a 120 Volt, high efficiency, electronic power supply providing DC power to the LED.
- Driver meets FCC EMI/RFI Consumer Level limits for use in residential and commercial installations.
- Driver features high power factor, low THD, and has integral thermal protection in the event of over temperature or internal failure.
- Driver mounts externally to the module, allowing future replacement, if needed.

Dimming

• Designed for continuous dimming capability to nominally 5% with many 120V Leading Edge (LE) and Trailing Edge (TE) phase control dimmers. Dimming to 5% is best assured using dimmers with low end trim adjustment. Consult dimmer manufacturer for compatibility and conditions of use. (Note some dimmers require a neutral in the wallbox.)

Warrantv

Eaton provides a five year limited warranty on RA56 LED.

Compliance Labels

- UL/cUL Listed 1598 Luminaire (with listed Halo housings)
- UL Classified (with other housings - see Housing Compatibility)
- UL/cUL Listed for Damp Location
- May be installed in housings in direct contact with air permeable insulation** and combustible material
- IP ingress protection rating NFL models: IP25 VWFL models: IP34

Qualification

- ENERGY STAR® qualified residential and commercial*
- · Can be used for State of California Title 24 high efficacy luminaire compliance*
- Can be used for International **Energy Conservation Code** (IECC) high efficacy luminaire Compliance

IC (Insulated Ceiling)

Listed UL/cUL 1598 with compatible housings, may be used to meet insulated ceiling** requirements such as:

- International Energy Conservation Code (IECC)
- New York State Energy Conservation Construction Code (NY-ECCC)
- State of California Title 24 "Recessed Luminaires in Insulated Ceilings."



RA4 LED Very Wide Flood (VWFL)

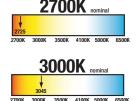


RA4 LED Narrow Flood (NFL)

4-Inch **Adjustable Gimbals All-Purpose Recessed Retrofit Modules**

FOR USE IN INSULATED **CEILING AND NON-INSULATED CEILING RATED HOUSINGS**

HIGH EFFICACY LED WITH INTEGRAL DRIVER -**DIMMABLE**















Refer to ENERGY STAR® Qualified Products List Can be used to comply with California Title 24 High Efficacy requirements.

Certified to California Appliance Efficiency Database Indoor LED nominal CCT of 4000K or less

^{*}Qualified and compliant. Refer to ENERGY STAR® Qualified Products List and CEC (T24) Appliance Database for listings

^{**}Not for use with housings in direct contact with spray foam insulation.

page 2 RA4 Series

ENERGY DATA

Minimum Starting Temp: -30°C (-22°F)

EMI/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer)

Sound Rating: Class A standards
Input Voltage: 120V

Power Factor: >0.90
Input Frequency: 50/60Hz

THD: <20%
Input Power: 10W

Driver-Safety Agency Approvals:

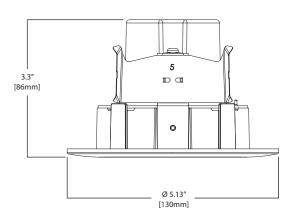
- UL60950-1 Recognized
- LPS output
- UL8750 Compliant

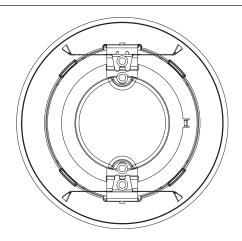
Maximum IC (Insulated Ceiling) Ambient Continuous Operating Temperature: 25°C (77°F)

Maximum Non-IC (NON-Insulated Ceiling) Ambient Continuous Operating Temperature 40°C (104°F)

DIMENSIONS

Input Current: 85mA





LIGHTING FACTS

RA406927WH

2700K Source VWFL Beam



RA406930WH

3000K Source VWFL Beam



RA406927NFLWH

2700K Source NFL Beam



RA406930NFLWH

3000K Source NFL Beam



For further information refer to the Lighting Facts website at http://lightingfacts.com/.



page 3 **RA4 Series**

ORDERING INFORMATION

SAMPLE NUMBER: RA406930WH Complete unit includes RA4 LED and a compatible 4" housing; ordered separately.

RA4 Series	Accessory (order separately)
Very Wide Flood - VWFL Models RA406927WH= 4" LED Adjustable Gimbal, 90CRI, 2700K, White, Very Wide Flood RA406930WH= 4" LED Adjustable Gimbal, 90CRI, 3000K, White, Very Wide Flood	HE26LED=Replacement screw base adapter (one included with unit)
Narrow Flood - NFL Models RA406927NFLWH= 4" LED Adjustable Gimbal, 90CRI, 2700K, White, Narrow Flood RA406930NFLWH= 4" LED Adjustable Gimbal, 90CRI, 3000K, White, Narrow Flood	
California non-E26 Models SLD405927WH-CA SLD405930WH-CA SSLD405935WH-CA SSLD405940WH-CA	

H995ICAT= 4" LED Insulated Ceiling, AIR-TITE New Construction Housing with LED luminaire connector (high efficacy compliant) H995RICAT= 4" LED Insulated Ceiling, AIR-TITE Remodel Housing with LED luminaire connector (high efficacy compliant)

HOUSING COMPATIBILITY

The RA4 is UL Listed in Halo and All-Pro recessed housings, and is UL Classified for use with any 4 inch diameter recessed housing constructed of steel or aluminum with an internal volume that exceeds 62.3 in³ in addition to those noted below:

HALO	Recessed Can Size	Catalog Number		
LED	4"	H995ICAT, H995RICAT, H245ICAT, H245RICAT		
Compatible Halo Incandescent E26 Screwbase Housings				
HALO Recessed Can Size		Catalog Number		



page 4 RA4 Series

PHOTOMETRY

RA406927WH

Reflector Beam Angle = VWFL Beam (Very Wide Flood)

CCT = 2700K Spacing Criteria = 1.18 Lumens per Watt = 60 Lm/W Test No. P121906 Test Model: RA406927WH

Cone of Light Footcandles 0 deg Aiming Angle Horizontal Illuminance on Floor			
Distance to	Initial Nadir Beam (ft.)		n (ft.)
Illuminated Plane	Footcandles	L Length	W Width
5.5'	9.7	6.4	6.4
7'	6	8.2	8.2
8'	4.6	9.4	9.4
9'	3.6	10.6	10.6
10'	2.9	11.8	11.8

Candlepower Distribution		
	Eyeball at 0-degrees	
110	99	
220	4	
330	0° 15° 30°	

Candela E	Distribution
Degrees Vertical	Candela
0*	293
5	293
15	283
25	257
35	206
45	144
55	79
65	40
75	18
85	6
90	0
	*CBCP

Luminance		
(Average Candela/M²)		
Degree	Avg. 0° Luminance	
45	43944	
55	29652	
65	20532	
75	15132	
85	14648	

Cone of Light Footcandles 35 deg Aiming Angle Vertical Illuminance on Wall				
Distance to Initial Nadir		Beam (ft.)		
Illuminated Plane	minated Footcandles	L Length	W Width	СВ
2'	43.5	2.1	2.4	2.9
3'	19.3	3.2	3.6	4.3
4'	10.9	4.2	4.8	5.7
5'	7	5.3	6	7.1
6'	4.8	6.4	7.4	8.6
8'	2.7	8.6	9.8	11.4
10'	1.7	10.8	12.2	14.3

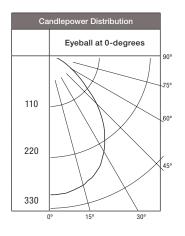
Zonal Lumen Summary			
Zone	Lumens	% Fixture	
0-30	225	37.4	
0-40	354	58.9	
0-60	534	89.0	
0-90	600	100	

RA406930WH

Reflector Beam Angle = VWFL Beam (Very Wide Flood)

CCT = 3000K Spacing Criteria = 1.18 Lumens per Watt = 61.5 Lm/W Test No. P121908 Test Model: RA406930WH

0 deg Aiming Angle Horizontal Illuminance on Floor				
Distance to	Initial Nadir	Beam (ft.)		
Illuminated Plane	Footcandles	L Length	W Width	
5.5'	9.9	6.4	6.4	
7'	6.1	8.2	8.2	
8'	4.7	9.4	9.4	
9'	3.7	10.6	10.6	
10'	3	11.8	11.8	



Candela Distribution	
Degrees Vertical	Candela
0*	301
5	300
15	290
25	263
35	211
45	147
55	81
65	41
75	19
85	6
90	0
	*CBCP

	Luminance (Average Candela/M²)	
	Degree	Avg. 0° Luminance
	45	45015
	55	30407
	65	21044
	75	15551
	85	14896

Cone of Light Footcandles 35 deg Aiming Angle Vertical Illuminance on Wall				
Distance to	Initial Nadir	Bear	n (ft.)	
Illuminated Plane	Footcandles	L Length	W Width	СВ
2'	44.6	2.1	2.4	2.9
3'	19.8	3.2	3.6	4.3
4'	11.1	4.2	4.8	5.7
5'	7.1	5.3	6	7.1
6'	5	6.4	7.4	8.6
8'	2.8	8.6	9.8	11.4
10'	1.8	10.8	12.2	14.3

Zonal Lumen Summary				
Zone	Lumens	% Fixture		
0-30	230	37.4		
0-40	362	58.9		
0-60	548	89.0		
0-90	615	100		





page 5 **RA4 Series**

PHOTOMETRY

RA406927NFLWH

Reflector Beam Angle = NFL Beam (Narrow Flood)

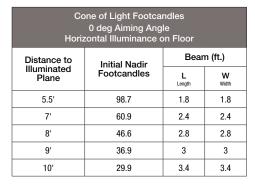
CCT = 2700K

Spacing Criteria = 0.35

Lumens per Watt = 64 Lm/W

Test No. P121904

Test Model: RA406927NFLWH



Ca	andlepower Distribution	Candela D	istribution
	Eyeball at 0-degrees	Degrees Vertical	Candela
	90"	0*	2985
	75°	5	2531
1000		15	836
	60°	25	223
		35	62
2000		45	27
	45°	55	14
		65	6
3000		75	2
(0° 15° 30°	85	0
		90	0

Luminance		
(Average Candela/M²)		
Degree	Avg. 0° Luminance	
45	6559	
55	3723	
65	1726	
75	577	
85	168	

Cone of Light Footcandles 35 deg Aiming Angle Vertical Illuminance on Wall				
Distance to	Initial Nadir	Beam (ft.)		
Illuminated Plane	Footcandles	L Length	W Width	СВ
2'	168	1.7	1	2.9
3'	74.7	2.6	1.6	4.3
4'	42	3.5	2.2	5.7
5'	26.9	4.4	2.8	7.1
6'	18.7	5.3	3.4	8.6
8'	10.5	7.1	4.4	11.4
10'	6.7	8.9	5.6	14.3

Zonal Lumen Summary			
Zone	Lumens	% Fixture	
0-30	556	86.9	
0-40	598	93.4	
0-60	631	98.7	
0-90	640	100	

RA406930NFLWH

Reflector Beam Angle = NFL Beam (Narrow Flood)

CCT = 3000K

Spacing Criteria = 0.35

Lumens per Watt = 64 Lm/W

Test No. P121905

Test Model: RA406930NFLWH

Cone of Light Footcandles 0 deg Aiming Angle Horizontal Illuminance on Floor				
Distance to	Initial Nadir	Bear	m (ft.)	
Illuminated Plane	Footcandles	L Length	W Width	
5.5'	98.7	1.8	1.8	
7'	60.9	2.4	2.4	
8'	46.6	2.8	2.8	
9'	36.9	3	3	

29.9

3.4

3.4

*CBCP

Candlepower Distribution			
	Eyeball at 0-degrees		
		90°	
		75°	
1000		60°	
		bU°	
2000			
		45°	
3000			
	0° 15° 30°		

Candela Distribution		
Degrees Vertical	Candela	
0*	2985	
5	2531	
15	836	
25	223	
35	62	
45	27	
55	14	
65	6	
75	2	
85	0	
90	0	

10'

andela D	istribution	Lum	inance
egrees ertical	Candela	(Average	Candela/M²)
0*	2985	Degree	Avg. 0° Luminance
5	2531	45	6559
15	836	55	3723
25	223	65	1726
35	62	75	577
45	27	85	168
55	14		

Cone of Light Footcandles 35 deg Aiming Angle Vertical Illuminance on Wall				
Distance to	Initial Nadir	Bear	Beam (ft.)	
Illuminated Plane	Footcandles	L Length	W Width	СВ
2'	168	1.7	1	2.9
3'	74.7	2.6	1.6	4.3
4'	42	3.5	2.2	5.7
5'	26.9	4.4	2.8	7.1
6'	18.7	5.3	3.4	8.6
8'	10.5	7.1	4.4	11.4
10'	6.7	8.9	5.6	14.3

Zonal Lumen Summary				
Zone	Lumens	% Fixture		
0-30	556	86.9		
0-40	598	93.4		
0-60	631	98.7		
0-90	640	100		



