

Concerto LED - LD3E

3-1/2" Series

Low Profile Round Regressed Trim with Lipped Reflector

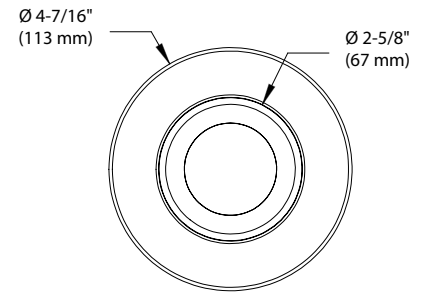
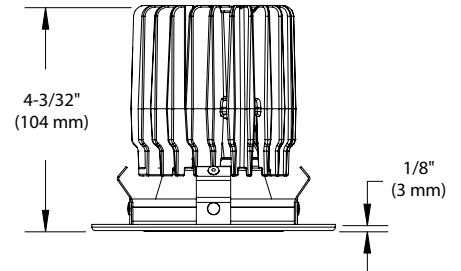


LD3EC-12BR (illustrated)



LD3EC-12BR - Spot (illustrated)

Project
Notes
Fixture Type
Date



DESCRIPTION

This series of fixed round or square trims offered with narrow flood or flood will be highly appreciated in the following applications: highlight of various objects in shows and museums or for certain tasks such as above a work table, for kids homework, kitchen island, sewing, etc ...

SPECIFICATIONS

COLOR TEMPERATURE	2,700K, 3,000K, 3,500K and 4,000K
CRI	80 + 90 + (only at 3,000K)
POWER SUPPLY	Several driver models available giving you 3 dimming options: ELV, 0-10V or Pulse Width Modulation (PWM).
LED MODULE	Bridgelux Vero 18, delivers a lumen maintenance greater than 70% after 50,000 hours of operation (L_{70}). Provides a high quality true color and a clean white light without hot spots. Binning within 3 steps on MacAdam ellipse. CREE CXA2530 delivers a lumen maintenance greater than 70% after 50,000 hours of operation (L_{70}). Provides a high quality true color and a clean white light without hot spots. Binning within 4 steps on MacAdam ellipse. Both modules surpass ANSI binning requirements.
DELIVERED LUMENS (Determined by the choice of housing)	Performance 1: 1,640 lumens, 97 lm/W Performance 2: 2,030 lumens, 86 lm/W Performance 3: 2,285 lumens, 75 lm/W
TRIM	Powder coated paint or plated die-formed steel. Different finishes available. Painted finishes available with Marine Grade option.
HEAT SINK	High quality injected aluminum heat sink ensuring maximum heat dissipation.

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SPECIFICATIONS SUITE

OPTIC SYSTEM Optional lenses available to personalize your lighting.
Protection lens covered with a high-performance film 98% effective.
Lens of 1/8" (3 mm) thick and 1.9" (47 mm) Ø.

Choice of available lenses (Spot is only available with clear lens):

Clear **(C)**, Frosted **(F)**, Honeycombs **(H)**, Linear **(L)**, Prismatic **(P)** and Solite **(S)**

Optical reflectors available:

S: Spot → 21°

M: Narrow Flood → 26°

REFLECTORS	Anodized	Specular	Paint
	Natural Anodized (AN)	Clear (CL)** Black (BK)	White (01)* Black (02) Architectural Bronze (05)* Antique Copper (06)* Matte White (11)* Metallic Grey (15)*

*These reflector colors are available only with the same trim color.

**Spot is only available with specular clear reflector.

CEILING CUTOUT Ø 3-5/8" (92 mm)

COMPATIBLE HOUSINGS

(Performance 2 trims work with either performance 1 and 2 housings.)

(Performance 3 trims works only with performance 3 housings.)

	Remodel Housing	New Construction Housing	Insulated Housing
Performance 1 (1,500 lumens)	RELD300LE1 RELD300LD1 RELD300LA1	NWLD300LE1 NWLD300LD1 NWLD300LA1	ISLD300LE1 ISLD300LD1 ISLD300LA1
Performance 2 (2,000 lumens)	RELD300LE2 RELD300LD2 RELD300LA2	NWLD300LE2 NWLD300LD2 NWLD300LA2	ISLD300LE2 ISLD300LD2 ISLD300LA2
Performance 3 (2,500 lumens)	Not available	NWLD300LD3 NWLD300LA3	Not available

For dimming, please refer to the selected housing specification sheet.

CERTIFICATION cULus **E343977** for **damp locations**.

WARRANTY 1 year for standard finishes, 2 years on "Marine Grade" finish and 5 years on LED module.



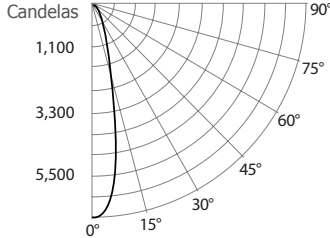
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PHOTOMETRIC DATA

3,000K, 80 + of CRI, Spot with performance 1 housing

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	182.1	2.5'
08'	102.4	3.3'
10'	65.6	4.1'
12'	45.5	4.9'
14'	33.4	5.8'
16'	25.6	6.6'

Beam: 23°
Beam Edge defined as 50% of Maximum Nadir Candle-power.

LUMINAIRE

Performance 1 LED	3,000K Spot
CBCP / Lumens	6,555 / 1,639
Watts	120V 277V 16.89W 17.39W
Operating AMPS	0.14A 0.062A
Lumen Maintenance	L70 @ 50,000 Hrs
CRI	80 +
Lumens/Watt	96.6
Spacing Criteria	0.4
Certificate LM79-08	S1405261-R1

COEFFICIENT OF UTILIZATION - %

Ceiling Reflect %	80	50	30				
Wall Reflect %	50	30	50	30	50	30	
RCR	0	119	119	111	111	106	106
	2	105	102	101	98	98	96
	4	95	90	92	88	90	87
	6	87	82	85	81	84	80
	8	80	76	79	75	78	74
	10	75	70	74	70	73	69

Zonal Cavity Method
Effective Floor Cavity Reflectance 20%

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	1,382	84.3%
0-40	1,556	94.9%
0-60	1,605	97.9%
60-90	34	2.1%
0-90	1,639	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	81	0.75
6'	45	0.42
7'	32	0.29
8'	32	0.29
9'	20	0.19

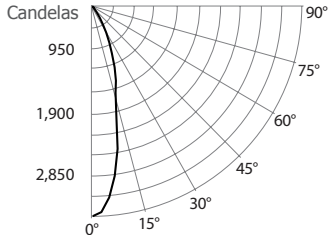
Local 38' x 38' x 10'. Workplan located 2 1/2' (30°).
Reflection factor of 80%/50%/30%.

CANDELAS DISTRIBUTION

DEGREES/VERTICAL	CANDELAS	DEGREES/VERTICAL	CANDELAS
0	6,555	45	28
5	6,030	55	24
10	3,974	65	16
15	1,830	75	10
20	1,001	85	6
25	721	90	0
35	275		

3,000K, 80 + of CRI, Narrow Flood with performance 1 housing

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	95.1	2.8'
08'	53.5	3.7'
10'	34.2	4.7'
12'	23.8	5.6'
14'	17.5	6.5'
16'	13.4	7.5'

Beam: 26°
Beam Edge defined as 50% of Maximum Nadir Candle-power.

LUMINAIRE

Performance 1 LED	3,000K Narrow Flood
CBCP / Lumens	3,424 / 1,095
Watts	120V 277V 15.75W 16.25W
Operating AMPS	0.13A 0.058A
Lumen Maintenance	L70 @ 50,000 Hrs
CRI	80 +
Lumens/Watt	69
Spacing Criteria	0.4
Certificate LM79-08	Based on test 475847

COEFFICIENT OF UTILIZATION - %

Ceiling Reflect %	80	50	30				
Wall Reflect %	50	30	50	30			
RCR	0	119	119	111	111	106	106
	2	109	106	104	102	101	100
	4	101	98	98	95	96	94
	6	95	91	93	90	92	89
	8	89	85	88	84	87	84
	10	84	80	83	80	82	79

Zonal Cavity Method
Effective Floor Cavity Reflectance 20%

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	995	90.85%
0-40	1,078	98.45%
0-60	1,095	99.93%
60-90	1	0.07%
0-90	1,095	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	54	0.7
6'	31	0.39
7'	21	0.27
8'	21	0.27
9'	14	0.18

Local 38' x 38' x 10'. Workplan located 2 1/2' (30°).
Reflection factor of 80%/50%/30%.

CANDELAS DISTRIBUTION

DEGREES/VERTICAL	CANDELAS	DEGREES/VERTICAL	CANDELAS
0	3,424	45	16
5	3,136	55	5
10	2,365	65	0
15	1,461	75	0
20	1,059	85	0
25	655	90	0
35	118		



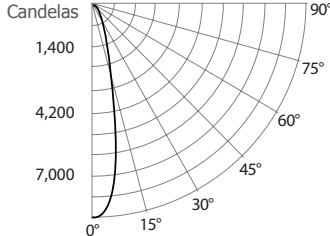
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PHOTOMETRIC DATA

3,000K, 80 + of CRI, Spot with performance 2 housing

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	232.1	2.4'
08'	130.6	3.2'
10'	83.6	4.0'
12'	58.0	4.8'
14'	42.6	5.6'
16'	32.6	6.4'

Beam: 23°
Beam Edge defined as 50% of Maximum Nadir Candle-power.

LUMINAIRE

Performance 2 LED	3,000K Spot
CBCP / Lumens	8,357 / 2,029
Watts	120V 277V 23.59W 24.09W
Operating AMPS	0.19A 0.086A
Lumen Maintenance	L70 @ 50,000 Hrs
CRI	80 +
Lumens/Watt	85.6
Spacing Criteria	0.4
Certificate LM79-08	S1405262-R1

COEFFICIENT OF UTILIZATION - %

Ceiling Reflect %	80			50			30		
Wall Reflect %	50	30	50	30	50	30	50	30	
RCR	0	119	119	111	111	106	106	106	
	2	105	102	101	98	98	96	96	
	4	95	91	92	89	90	87	87	
	6	87	82	85	81	84	80	80	
	8	81	76	79	75	78	75	75	
	10	75	71	74	70	73	70	70	

Zonal Cavity Method
Effective Floor Cavity Reflectance 20%

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	1,714	84.5%
0-40	1,928	95.1%
0-60	1,986	97.9%
60-90	42	2.1%
0-90	2,029	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	100	1.05
6'	56	0.59
7'	39	0.41
8'	39	0.41
9'	25	0.26

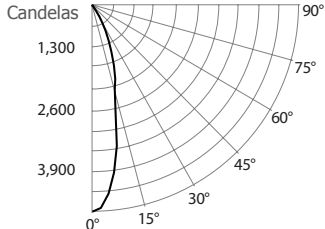
Local 38' x 38' x 10'. Workplan located 2 1/2' (30").
Reflection factor of 80%/50%/30%.

CANDELAS DISTRIBUTION

DEGREES/VERTICAL	CANDELAS	DEGREES/VERTICAL	CANDELAS
0	8,357	45	33
5	7,757	55	30
10	4,923	65	18
15	2,153	75	13
20	1,224	85	10
25	896	90	0
35	343		

3,000K, 80 + of CRI, Narrow Flood with performance 2 housing

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	126.4	2.8'
08'	71.1	3.7'
10'	45.5	4.7'
12'	31.6	5.6'
14'	23.2	6.5'
16'	17.8	7.5'

Beam: 26°
Beam Edge defined as 50% of Maximum Nadir Candle-power.

LUMINAIRE

Performance 2 LED	3,000K Narrow Flood
CBCP / Lumens	4,549 / 1,460
Watts	120V 277V 22.52W 23.02W
Operating AMPS	0.18A 0.083A
Lumen Maintenance	L70 @ 50,000 Hrs
CRI	80 +
Lumens/Watt	65
Spacing Criteria	0.4
Certificate LM79-08	Based on test 475857

COEFFICIENT OF UTILIZATION - %

Ceiling Reflect %	80			50			30		
Wall Reflect %	50	30	50	30	50	30	50	30	
RCR	0	119	119	111	111	106	106	106	
	2	109	106	104	102	101	100	100	
	4	101	98	98	95	96	94	94	
	6	95	91	93	90	92	89	89	
	8	89	85	88	84	87	84	84	
	10	84	80	83	80	82	79	79	

Zonal Cavity Method
Effective Floor Cavity Reflectance 20%

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	1,326	90.86%
0-40	1,437	98.50%
0-60	1,458	99.95%
60-90	1	0.05%
0-90	1,460	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	72	1
6'	41	0.56
7'	28	0.39
8'	28	0.39
9'	18	0.25

Local 38' x 38' x 10'. Workplan located 2 1/2' (30").
Reflection factor of 80%/50%/30%.

CANDELAS DISTRIBUTION

DEGREES/VERTICAL	CANDELAS	DEGREES/VERTICAL	CANDELAS
0	4,549	45	21
5	4,172	55	6
10	3,152	65	0
15	1,933	75	0
20	1,414	85	0
25	877	90	0
35	159		



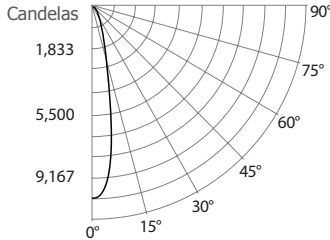
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PHOTOMETRIC DATA

3,000K, 80 + of CRI, Spot with performance 3 housing

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	278.7	2.2'
08'	156.8	2.9'
10'	100.3	3.7'
12'	69.7	4.4'
14'	51.2	5.2'
16'	39.2	5.9'

Beam: 21°
Beam Edge defined as 50% of Maximum Nadir Candle-power.

LUMINAIRE

Performance 3 LED	3,000K Spot
CBCP / Lumens	10,034 / 2,282
Watts	120V 277V 30.58W 31.08W
Operating AMPS	0.25A 0.112A
Lumen Maintenance	L70 @ 50,000 Hrs
CRI	80 +
Lumens/Watt	74.3
Spacing Criteria	0.4
Certificate LM79-08	S1405264-R1

COEFFICIENT OF UTILIZATION - %

Ceiling Reflect %	80	50	30				
Wall Reflect %	50	30	50	30	50	30	
RCR	0	119	119	111	111	106	106
	2	106	102	101	98	98	96
	4	95	91	92	89	90	87
	6	87	83	85	81	84	80
	8	81	76	79	75	78	75
	10	75	71	74	70	74	70

Zonal Cavity Method
Effective Floor Cavity Reflectance 20%

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	1,919	84.1%
0-40	2,168	95%
0-60	2,237	98.1%
60-90	44.5	1.9%
0-90	2,282	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	112	1.36
6'	63	0.76
7'	44	0.53
8'	44	0.53
9'	28	0.34

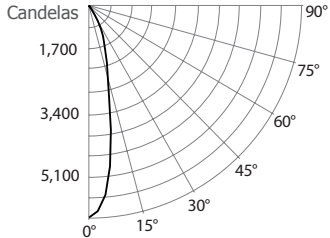
Local 38' x 38' x 10'. Workplan located 2 1/2' (30").
Reflection factor of 80%/50%/30%.

CANDELAS DISTRIBUTION

DEGREES/VERTICAL	CANDELAS	DEGREES/VERTICAL	CANDELAS
0	10,034	45	37
5	9,329	55	33
10	5,278	65	19
15	2,317	75	14
20	1,363	85	10
25	1,007	90	0
35	397		

3,000K, 80 + of CRI, Narrow Flood with performance 3 housing

CANDLEPOWER DISTRIBUTION



LIGHT CONE

Distance	FC	DIA
06'	167.5	2.5'
08'	94.2	3.3'
10'	60.3	4.1'
12'	41.9	4.9'
14'	30.8	5.7'
16'	23.6	6.5'

Beam: 23°
Beam Edge defined as 50% of Maximum Nadir Candle-power.

LUMINAIRE

Performance 3 LED	3,000K Narrow Flood
CBCP / Lumens	6,029 / 1,620
Watts	120V 277V 29.24W 29.74W
Operating AMPS	0.24A 0.107A
Lumen Maintenance	L70 @ 50,000 Hrs
CRI	80 +
Lumens/Watt	55.5
Spacing Criteria	0.4
Certificate LM79-08	Based on test 607000

COEFFICIENT OF UTILIZATION - %

Ceiling Reflect %	80	50	30				
Wall Reflect %	50	30	50	30	50	30	
RCR	0	119	119	111	111	106	106
	2	109	106	104	102	101	100
	4	101	98	98	96	97	94
	6	95	92	93	90	92	90
	8	90	86	88	85	87	85
	10	85	81	84	81	83	80

Zonal Cavity Method
Effective Floor Cavity Reflectance 20%

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	1,476	91.13%
0-40	1,591	98.23%
0-60	1,618	99.88%
60-90	2	0.12%
0-90	1,620	100%

MULTIPLE UNIT DATA - (RCR 2)

SPACING ON CENTER	INITIAL FOOTCANDLES	WATTS/SQ. FT.
5'	80	1.29
6'	45	0.73
7'	31	0.51
8'	31	0.51
9'	20	0.32

Local 38' x 38' x 10'. Workplan located 2 1/2' (30").
Reflection factor of 80%/50%/30%.

CANDELAS DISTRIBUTION

DEGREES/VERTICAL	CANDELAS	DEGREES/VERTICAL	CANDELAS
0	6,029	45	25
5	5,419	55	9
10	3,605	65	0
15	2,067	75	1
20	1,358	85	0
25	957	90	0
35	145		



Concerto LED - LD3E

3-1/2" Series

LIGHTING FACTS

CONCERTO

Light Output (Lumens)	1580
Watts	16.81
Lumens per Watt (Efficacy)	94

Color Accuracy Color Rendering Index (CRI)	82
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Light Color
Correlated Color Temperature (CCT) **3091 (Bright White)**

2700K 3000K 4500K 6500K

All results are according to IESNA LM-79-2008: *Approved Method for the Electrical and Photometric Testing of Solid-State Lighting*. The U.S. Department of Energy (DOE) verifies product test data and results.

Visit www.lightingfacts.com for the *Label Reference Guide*.

Registration Number: LVBP-CNMDTZ (7/22/2014)
Model Number: LD3E-3080S2 ISLDXX1.RELDXX1.NWLDXX1
Type: Luminaire - Downlight

CONCERTO

Light Output (Lumens)	1986
Watts	23.64
Lumens per Watt (Efficacy)	84

Color Accuracy Color Rendering Index (CRI)	82
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Light Color
Correlated Color Temperature (CCT) **3096 (Bright White)**

2700K 3000K 4500K 6500K

All results are according to IESNA LM-79-2008: *Approved Method for the Electrical and Photometric Testing of Solid-State Lighting*. The U.S. Department of Energy (DOE) verifies product test data and results.

Visit www.lightingfacts.com for the *Label Reference Guide*.

Registration Number: LVBP-DYMH2E (7/22/2014)
Model Number: LD3E-3080S2 ISLDXX2.RELDXX2.NWLDXX2
Type: Luminaire - Downlight

CONCERTO

Light Output (Lumens)	2157
Watts	30.39
Lumens per Watt (Efficacy)	71

Color Accuracy Color Rendering Index (CRI)	81
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Light Color
Correlated Color Temperature (CCT) **3103 (Bright White)**

2700K 3000K 4500K 6500K

All results are according to IESNA LM-79-2008: *Approved Method for the Electrical and Photometric Testing of Solid-State Lighting*. The U.S. Department of Energy (DOE) verifies product test data and results.

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Registration Number: LVBP-CML11Z (7/22/2014)
Model Number: LD3E-3080S3 NWLDXX3
Type: Luminaire - Downlight



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LD3E MODEL PHOTOMETRIC DATA

With performance 1 housing

	Spot		Narrow Flood	
	Lms	lm/W	Lms	lm/W
2,700K with 80 CRI	1,470	87.6	1,003	62.5
3,000K with 90 CRI	1,207.7	71.9	837	51.6
3,500K with 80 CRI	1,647.8	98	1,142	71.2
4,000K with 80 CRI	1,686.8	100.4	1,169	72.1

With performance 2 housing

	Spot		Narrow Flood	
	Lms	lm/W	Lms	lm/W
2,700K with 80 CRI	1,847.7	78.2	1,409	62.3
3,000K with 90 CRI	1,580	67	1,180	51.2
3,500K with 80 CRI	2,139.6	90.5	1,588	70.2
4,000K with 80 CRI	2,157.1	91.2	1,601	70

With performance 3 housing

	Spot		Narrow Flood	
	Lms	lm/W	Lms	lm/W
2,700K with 80 CRI	2,006.8	66.1	1,412	48.4
3,000K with 90 CRI	1,703.4	56.1	1,296	44.7
3,500K with 80 CRI	2,139.6	90.5	1,745	60.2
4,000K with 80 CRI	2,157.1	91.2	1,759	60.7

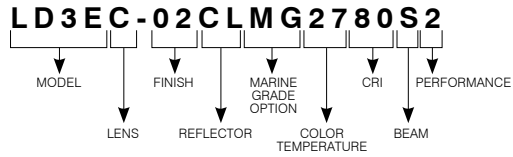
* All .ies and Lighting facts files are available on our Website.



Concerto LED - LD3E

3-1/2" Series

CODIFICATION EXAMPLE



ORDERING CODE

MODEL	LENS	FINISH	REFLECTOR	MARINE GRADE	COLOR TEMPERATURE	CRI	BEAM	PERFORMANCE
LD3E								
LD3E	C Clear	-01 White	ANODIZED	MG (optional)	27 2,700K	80 80+ CRI	S Spot (21°)	2
	F Frosted	-02 Black	AN Natural Anodized	May be	30 3,000K	90 90+ CRI	M Narrow Flood (26°)	3 Performance 3 (2,500 lumens)
	H Honeycombs	-03 Gold Plated 24K		applied on	35 3,500K	(only with 3,000K)		
	L Linear	-04 Chrome	SPECULAR	finishes: -01, -02, -05, -06, -11 and -15	40 4,000K			
	P Prismatic	-04BR Brushed Chrome	CL Clear					
	S Solite	-05 Architectural Bronze	BK Black					
		-06 Antique Copper						
		-11 Matte White	PAINTED					
		-12BR Brushed Nickel	01 White*					
		-13 Satin Nickel	02 Black					
		-15 Metallic Grey	05 Architectural Bronze*					
		-17 Antique Nickel	06 Antique Copper*					
			11 Matte White*					
			15 Metallic Grey*					

Use with Performance 1 (1,500 lumens) or Performance 2 (2,000 lumens) Housings

Spot is only offered with specular clear reflector (CL) and clear lens (C).

*These reflector colors are available only with the same trim color.

For future on site modification of the light distribution.

Ordering codes: replacement lenses.

Lenses (to modify the light diffusion)

Linear: **103091** Honeycombs: **103089**
 Solite: **103097** Frosted: **313206**
 Prismatic: **103094** Clear: **102958**

MARINE GRADE - Unless otherwise indicated, trims are for interior, cold and exterior locations where fixtures are not subject to direct rain or snow exposure as in soffits. MARINE GRADE treatment is recommended for exterior, shower and high salinity environment.

