#### NLCBS-4 Type 4" Cobalt Dedicated Shallow Reflectors Project Source: 13W to 16W LED Catalog No. 850lm to 1250lm Notes PRODUCT DESCRIPTION **PRODUCT IMAGES & DIMENSIONS** 4" Cobalt shallow reflectors are dedicated for Cobalt shallow housing. Available in multiple finishes and lumens outputs, also in round and square apertures. Cobalt family utilize Cree LED technology throughout, for a consistent and uniform 2-1/16 appearance. FEATURES 850lm or 1250lm LED packages 3-1/4 5-1/8 . 2700K, 3000K 3500K or 4000K @ 90+ CRI . Cree® COB LED Technology NLCBS-453 5-Year limited warranty Square w/ Round Aperture . . **ENERGY STAR certified** cULus listed for wet locations . 60 100 DW HZW MPW WW ELECTRICAL **Delivered Lumens / Wattage:** 85 = 1098lm / 13W @ 4000K 2-1/16" 12 = 1330lm / 16W @ 4000K (Delivered lumens will vary depending on reflector, CCT and finish) Color Temperature: 2700K, 3000K, 3500K, 4000K CRI: 90+ CRI 2-1/2" 5-1/8' Operating Temperature: 0°C to 25°C ambient temperature **Dimming:** Determined by housing NLCBS-456 Square w/ Square Aperture **COMPATIBLE HOUSING** Shallow reflectors are compatible with Cobalt Shallow housing manufactured by Nora Lighting. 1 CATALOG NO. DESCRIPTION LUMENS / WATTAGE BB BW ΒZ MPW H7W NHSIC-485LE3LT Shallow IC Air-Tight New Construction 850lm / 13W NHSIC-412LE4LT Shallow IC Air-Tight New Construction 1250lm / 16W ΝN PW WW LABELS AND LISTINGS cULus Listed for Wet Location . ENERGY STAR certified 2-1/16" Can be used to comply with 2019 Title 24 - part 6 High Efficacy LED light source requirements 5-Year Limited Warranty . **RoHS** Compliant 3-3/4 6-1/16 90+ CRI WET NLCBS-4W51 **Round Reflector** 67 R7 DMPW HMPW MPW WW 2-1/16 4" Cobalt Shallow Reflectors - Requires with Cobalt Shallow Housing Reflector Type Lumens / Wattage Color Temp. Finishes (See chart below) 6-1/16 NLCBS-453 = Square w/Round Aperture 85 = 850 Im / 13 W27 = 2700K BB = Black / Black NLCBS-456 = Square w/Square Aperture 12 = 1250lm / 16W **30** = 3000K BW = Black / White NLCBS-4W52 NLCBS-4W51 = Round Reflector **35** = 3500K BZ = Bronze / Bronze **Round Baffle** NLCBS-4W52 = Round Baffle **40** = 4000K DW = Diffused / White DMPW = Diffused / Matte Powder White HMPW = Haze / Matte Powder White MPW WW HZW = Haze / White

MPW = Mate Powder White NN = Natural Metal / Natural Metal PW = Pewter / White WW = White / White

#### Available Trim Finishes

	BB	BW	BZ	DW	DMPW	HMPW	HZW	MPW	NN	PW	WW
453			•	•			•	•			•
456	•	•	•				•	•	•	•	•
4W51			•		•	•		•			•
4W52			•					•			•

Example: NLCBS-4538530WW = 4" Cobalt Square Reflector w/Round Aperture, 850Im / 13W LED, 3000K, White Reflector / White Flange



#### NHSIC-4 Type 4" Cobalt Shallow IC Air-Tight Housing Project Source: 13W to 16W LED Catalog No. 850lm to 1250lm Notes PRODUCT DESCRIPTION **PRODUCT IMAGES & DIMENSIONS** Shallow specification grade new construction housing that is only 2-5/8" tall. The housing is ideal for multi-family and residential applications. The driver is completely accessible from below the ceiling with a patent pending design. FEATURES Patent Pending Design Shallow 2-5/8" height . Complete access to driver from below . Adjustable collar for up to 1-1/2" ceiling thickness 5-Year limited warranty ENERGY STAR certified . cULus listed for wet locations CONSTRUCTION Housing: 0.04" steel housing with two inner boxes adjusts from 3/8" to a maximum ceiling thickness of 1-1/2". Heavy gauge welded steel suitable for contact with insulation. Meets ASTM-283 Air Tight requirements. Housing contains patent pending movable driver compartment for easy access to driver after installation. Fixture compartment contains quick connect for dedicated Cobalt trims. Spring brackets accept torsion wing trim springs. 2-5/8" Bar Hangers: Two 13-3/4" to 24-1/2" heavy duty adjustable bar hangers with captive nails are included on frame. Bar hangers are parallel to junction box, but can be repositioned 90° perpendicular to junction box if desired. "L" Shaped bar hanger foot to align to hottom of construction joist. 10-7/8\* Junction Box: Prewired 25 cubic inch 0.075" thick galvanized steel, with four .88" Romex® pryouts, and snap on covers. All leads are #18AWG wire, the ground wire is connected to the wiring compartment, and quick connectors are supplied on all leads. Through branch circuit wiring, (4-in, 4-out). ELECTRICAL Input Voltage: 120V or 120-277V (must specify) Wattage: 13W or 16W Operating Temp.: 0°C to 25°C ambient temperature NORA Max. span of **Dimming:** Triac, ELV or O-10V dimming (must specify) 4-3/8" PATENT PER 24-1/2\* Click Here or check complete dimmer list at www.NoraLighting.com in the "Compatibility" page under "Resources" tab 0 **COMPATIBLE REFLECTORS** CATALOG NO. DESCRIPTION 4″ Square with Round Aperture NLCBS-453 4" Square with Square Aperture NLCBS-456 NLCBS-4W51 4" Round Reflector NLCBS-4W52 4" Round Baffle LABELS AND LISTINGS cULus Listed for Damp Location (wet location when used with compatible reflector) Meets or exceeds ASTM-283 Air-Tight Requirements **ENERGY STAR certified** Can be used to comply with 2016 Title 24 - part 6 High Efficacy LED light source requirements 5-Year Limited Warranty



4" Cobalt Shallow IC Air-Tight Housing - Compatible with Cobalt Shallow Reflectors

#### Housing Type

NHSIC-485LE3LT = 850Im / 13W / 120V Input; Triac/ELV dimming

NHSIC-412LE4LT = 1250Im / 16W / 120-277V Input; Triac/ELV/0-10V dimming

Example: NHSIC-485LE3LT = 4" Cobalt Shallow IC Air-Tight Housing, 850Im / 13W / 120V Input; Triac/ELV dimming



# **PHOTOMETRICS**

**Test Information** 

Lumens: 1098lm

Wattage: 13.3W

Efficacy: 83lpw CCT / CRI: 4000K / 90 CRI

Test Number: NTR1182 Part Number: NLCBS-4W518540WW

Spacing Criteria (0º-180): 1.16

Spacing Criteria (90º-270): 1.18

4" Cobalt Dedicated Shallow Reflectors

### Туре

#### Project

Catalog No.

## Notes

Polar Curve

129

257

386

515

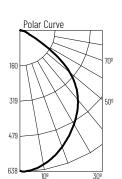
	7	0		
	Zonal Lumei	n Summary		 Ľ
Beam Diameter	Zone	Lumens	% Luminaire	١
9'-2"	0-30	381	34.7	
13'-11"	0-40	611	55.6	
18'-6"	0-60	998	90.9	
23'-1"	0-90	1090	99.3	
27'-8"	90-180	8	0.7	

0-180

Candela Table				
Vertical Angles	Candela			
0	514			
5	511			
15	479			
25	427			
35	369			
45	298			

#### **Test Information**

Test Number: NTR1177 Part Number: NLCBS-4W511240WW Lumens: 1330lm Wattage: 15.4W Efficacy: 86lpw CCT / CRI: 4000K / 90 CRI Spacing Criteria (0º-180): 1.16 Spacing Criteria (90º-270): 1.16



luminanco at a Distance

Illuminance at a Distance

FC at Nadir

32.2fc

14.3fc

8fc

5.1fc

3.6fc

Distance from

Luminaire

4'

6'

8'

10'

12'

70º

50º

30

	Illuminance at a Distance					
/0º	Distance from Luminaire	FC at Nadir	Beam Diameter			
	4	39.7fc	9'			
50º	6'	17.6fc	13'-7"			
	8'	9.9fc	18'-1"			
	10'	6.3fc	22'-7"			
	12'	4.4fc	27'-1"			

Zonal Lumen Summary % 7one Lumens Luminaire 0-30 468 35.2 0-40 749 56.3 0-60 1212 91.2 0-90 1320 99.3 90-180 10 0.7 0-180 1330 100

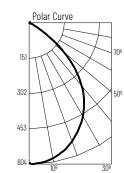
1098

100

Candela Table				
Vertical Angles	Candela			
0	634			
5	630			
15	591			
25	525			
35	449			
45	360			

### **Test Information**

Test Number: NTR11275 Part Number: NLCBS-4561230HZW Lumens: 1035lm Wattage: 15.4W Efficacy: 67lpw CCT / CRI: 3000K / 90 CRI Spacing Criteria (0º-180): 1.16 Spacing Criteria (90º-270): 1.08



	Illuminance at a Distance						
	Distance from Luminaire	FC at Nadir	Beam Diameter				
	4	37.4fc	6'-11"				
	6'	16.6fc	10'-4"				
	8'	9.3fc	13'-10"				
	10'	6fc	17'-2"				
	12'	4.2fc	20'-7"				

Zonal	Lumer	n Summary
		1

	-	
Zone	Lumens	% Luminaire
0-30	442	42.7
0-40	687	66.4
0-60	974	94.1
0-90	1009	97.4
90-180	27	2.6
0-180	1035	100

Candela Table

Landela Table				
Vertical Angles	Candela			
0	598			
5	599			
15	567			
25	501			
35	393			
45	223			

