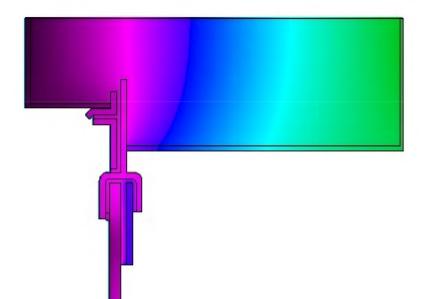
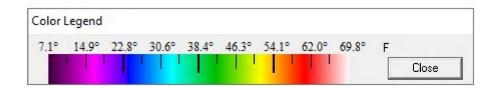




THERM MODELING REPORTS BY THERMOLITE 1-1-20

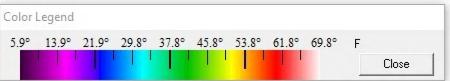


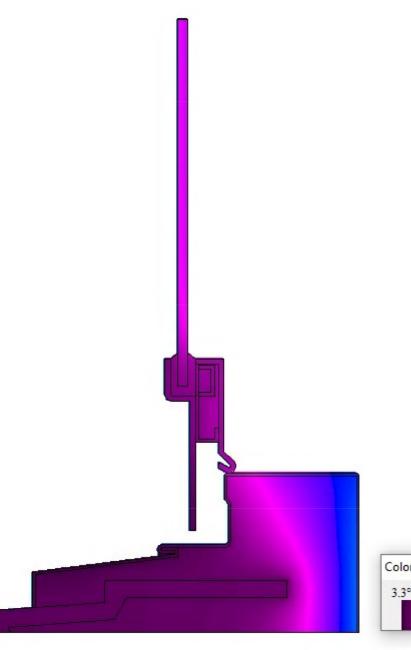
Existing Window Head



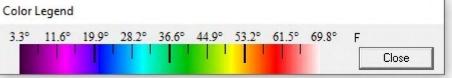
Color Legend

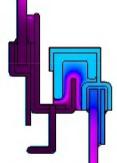
Existing Window Jamb



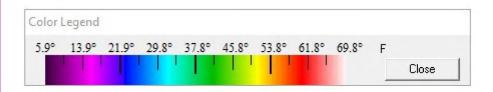


Existing Window Sill





Existing Window Meeting Rail



01/01/20 18:49:00

BERKELEY LAB WINDOW v7.4.8.0 Report Page 1

ID: 68

Name: Oklahoma City exist single hung

EnvCond: 1 NFRC 100-2010

Type: Custom Dual Vision Vertical

Tilt: 90

Width: 51.0 inches Height: 75.5 inches Area: 26.74 ft2

U-value: 1.062 Btu/h-ft2-F

SHGC: 0.600 Vt: 0.618 CR: N/A

Data for Glazing Systems

ID	Name	COG Area ft2	#Lay	Tilt	Uc Btu/h-ft2	SCc	SHGCc	Vtc	RHG
164	E	6.95	1	90	0.976	0.971	0.845	0.897	207
164	E	6.72	1	90	0.976	0.971	0.845	0.897	207

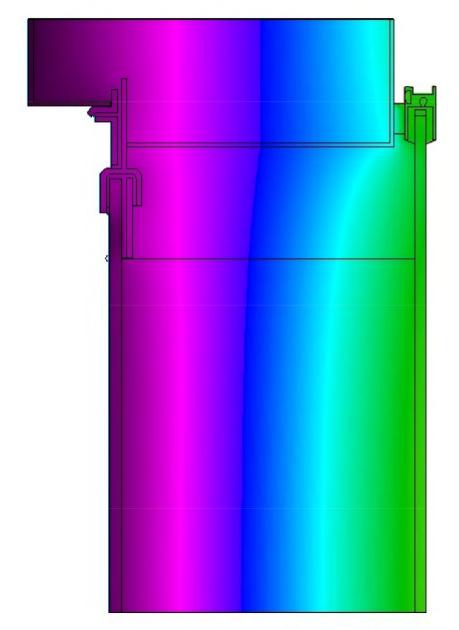
Layer Data for Glazing System

10	Name	D()	ISOT	I R	501 2	IVIS	1 K	/1S 2	IIr	1 Er	n15 2	Kett
							****					A
Outside	9											
2003	Clr-5.CIG	#0.185	.812	.072	.072	.897	.080	.080	.000	.840	.840	.578
Inside												

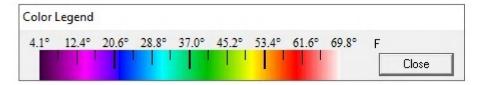
Frame Data

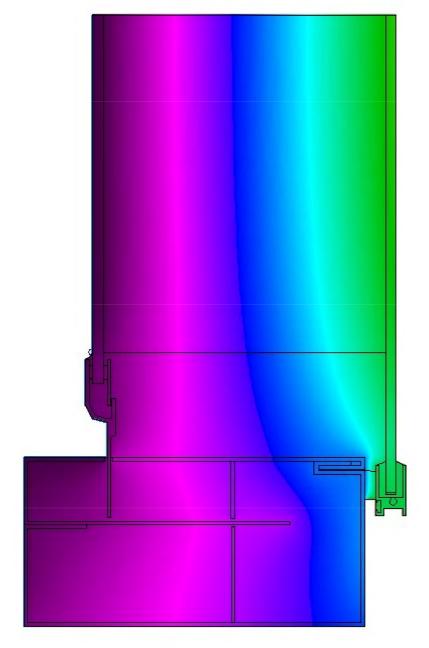
Location	ID	Name	Source	Frame Area ft2	Edge Area ft2	Uframe Btu/h-f	Uedge t2-F
Header	263	head exist.TH	Therm	1.286	0.680	1.2080	0.9775
Upper Left Jamb	257	Jamb exist.TH	Therm	1.157	0.539	1.2148	0.9738
Upper Right Jamb	257	Jamb exist.TH	Therm	1.157	0.539	1.2148	0.9738

		6 0 00	4.00	4.4	A	
Mullion	261 Mullion E	xist Therm	0.851	1.274	1.5214	1.0075
Lower Left Jamb	257 Jamb exis	t.TH Therm	1.142	0.523	1.2148	0.9738
Lower Right Jamb	257 Jamb exis	t.TH Therm	1.142	0.523	1.2148	0.9738
Sill	258 Sill exis	t.TH Therm	1.573	0.680	1.2200	0.9898
Gas Data						
ID Name		Type Cond	Visc Cp	Dens	Pran	
		10	x e-6			
No gas data for Si BERKELEY LAB WINDO Environmental Cond	W v7.4.8.0 Repo itions: 1 NFRC 1	00-2010		01/01,	/20 18:4	9:00
	in WndSpd Wnd F) (mph)		Tsky Esky t2) (F)			
Uvalue -0.4 69 Solar 89.6 75	.8 12.30 Wind .2 6.15 Wind		-0.4 1.00 89.6 1.00			
Frame Library Data		W. 70. 4	*100 e10e0	61.6	10.316	
ID Name	Source	U-value Frame Edge	Edge GlzSys Corr Width			Abs
				-	_	
263 head exist.	TH Therm	1.2080 0.977	5 N/A 0.185	1.031	4.00	0.30
257 Jamb exist.	TH Therm	1.2148 0.973	8 N/A 0.185	1.031	4.66	0.30
261 Mullion Exi	st Therm	1.5214 1.007	5 N/A 0.185	1.031	2.94	0.30
258 Sill exist.	TH Therm	1.2200 0.989	8 N/A 0.185	1.031	4.89	0.30
		Page 2				



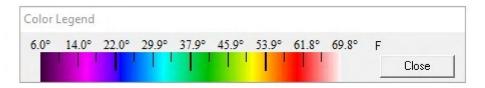
<u>Existing Window Head</u> + Thermolite Flush Mount

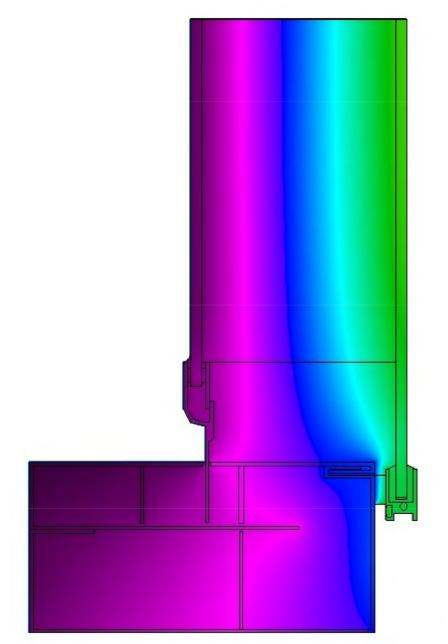




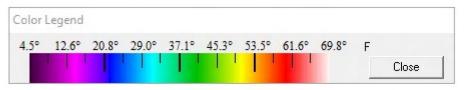
Existing Window Jamb - upper

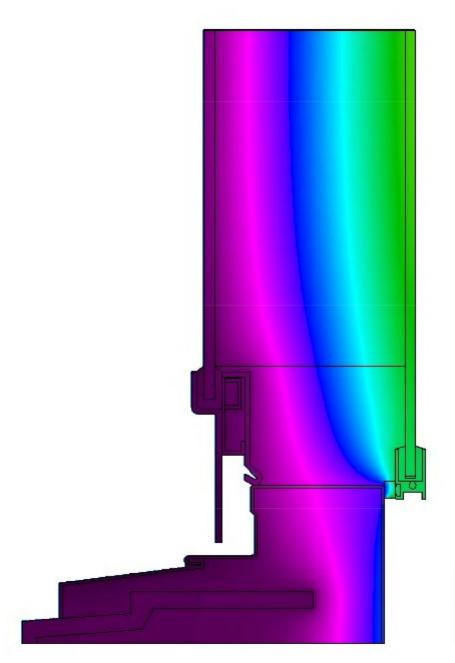
+ Thermolite Flush Mount



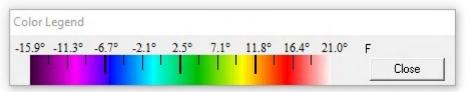


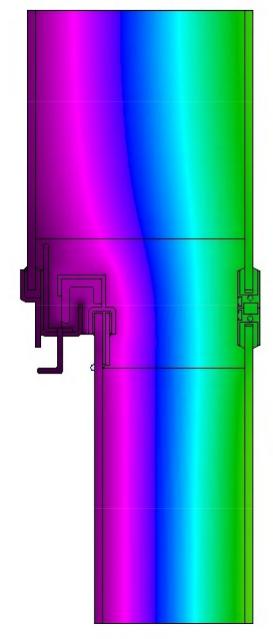
<u>Existing Window Jamb - lower</u> + Thermolite Flush mount





Existing Window Sill + Thermolite Flush mount





Existing Window Meeting Rail + Thermolite Flush Mount

Color Legend

2.6° 11.0° 19.4° 27.8° 36.2° 44.6° 53.0° 61.4° 69.8° F

Close

Existing + Thermolite split flush mount

BERKELEY LAB WINDOW v7.4.8.0 Report Page 1 12/31/19 20:51:17

ID: 67

Name: Split flush mount

COG

EnvCond: 1 NFRC 100-2010

Type: Custom Dual Vision Vertical

Tilt: 90

Width: 51.0 inches Height: 75.5 inches Area: 26.74 ft2

U-value: 0.566 Btu/h-ft2-F

SHGC: 0.598 Vt: 0.647 CR: N/A

Data for Glazing Systems

ID	Name	Area ft2	#Lay	Tilt	Uc Btu/h-ft2	SCc	SHGCc	Vtc	RHG
					0000000				
167		8.31	2	90	0.476	0.853	0.742	0.810	177
166		7.92	2	90	0.476	0.853	0.742	0.810	177

Layer Data for Glazing System

Exist+ split flush top'

ID	Name	D(")	Tsol	1	Rsol 2	Tvis	1 R	vis 2	Tir	1 E	mis 2	Keff
								A					A
Outside	9												
2003	Clr-5.CIG	#0.3	185	.812	.07	2 .072	.897	.080	.080	.000	.840	.840	.578
	1 Air	4.9	940										.399
2003	Clr-5.CIG	#0.3	185	.812	.07	2 .072	.897	.080	.080	.000	.840	.840	.578
Inside													

Layer Data for Glazing System

Exist+ flush mount'

ID	Name	D(")	Tsol	1 R	sol 2	Tvis	1 R	vis 2	Tir	1 Er	nis 2	Keff
		A SERVE								ener.		Heer.
Outsid	e											
2003	Clr-5.CIG	#0.185	.812	.072	.072	.897	.080	.080	.000	.840	.840	.578
	1 Air	3.360										.271

2003 Clr-5.CIG #0.185 .812 .072 .072 .897 .080 .080 .000 .840 .840 .578

Inside

Frame

Area

0.594

0.720

0.720

1.162

x e-6

Edge

Area

1.397

0.557

0.557

Dens

12/31/19 20:51:17

Uframe

0.6378 0.5134

0.9518 0.5506

0.9518 0.5506

0.742 0.8433 0.5509

Pran

Uedge

BERKELEY	LAB	WINDOW	v7.4.8.0	Report	Page	2	

252

252

Name

ID

Frame Data

Location

Mullion

Sill

Uvalue

Solar

Lower Left Jamb

Lower Right Jamb

ft2 ft2 Btu/h-ft2-F head flush mo Therm Header 250 0.742 0.693 0.8287 0.5292 Upper Left Jamb 251 Jamb flush mo Therm 0.735 0.581 0.9076 0.5554 Jamb flush mo Therm Upper Right Jamb 0.735 0.581 0.9076 0.5554 251

Source

Gas Data ID Name Type Cond Visc Cp

262 Mullion Exist Therm

Jamb flush mo Therm

Jamb flush mo Therm

254 Sill flush mo Therm

	-							
1	Air			Pure	0.0139	11.57	0.24	0.0807 0.7197
Environm	mental Co	onditi	ons: 1 N	FRC 100-20	10			
	Tout (F)	Tin (F)	WndSpd (mph)	Wnd Dir	Solar	Tsky E	sky	

12.30

Windward

6.15 Windward

Frame	Library	Dat
000	mark a selection	4

69.8

75.2

-0.4

89.6

Data
U-value Edge GlzSys GlzSys Width
Page 2

248.2

0.0 -0.4

89.6

1.00

1.00