



Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Eaton Lighting Division
(formerly Cooper Lighting)

Brand: FAIL-SAFE

Report Number: 8004.0

Luminaire Tested: **FRS-240BX-120**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Eaton or from external interests.



Test Information

Test Method: LM-79-08
Report Number: 8004.0
Test Lab:
Issue Date: 3/3/2020
Manufacturer: EATON (FORMERLY COOPER LIGHTING)
Product Line: FAIL-SAFE
Catalog Number: FRS-240BX-120
Description: FAIL-SAFE 2'SURFACE MOUNT LUMINAIRE
WHITE REFL W/ PRISMATIC WRAPAROUND LENS
Light Source: 2/40W BX 3150 LUMENS
WATTS=77
F40BX/SPX35/RS
Ballast/Driver: -

Luminaire Equipment:	<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
	a	good	reflector
	b	good	lens
	c	good	housing
	d	good	cord

Summary

Lumens per Lamp: 3150 (2 lamps)
Luminaire Lumens: 3637.6 lumens
Efficiency: 57.7%
Efficacy: 47.2 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.91' x L: 1.94' x H: 0.15')
IES Classification: Type V - Short - Cutoff
BUG Rating: B2 - U3 - G1

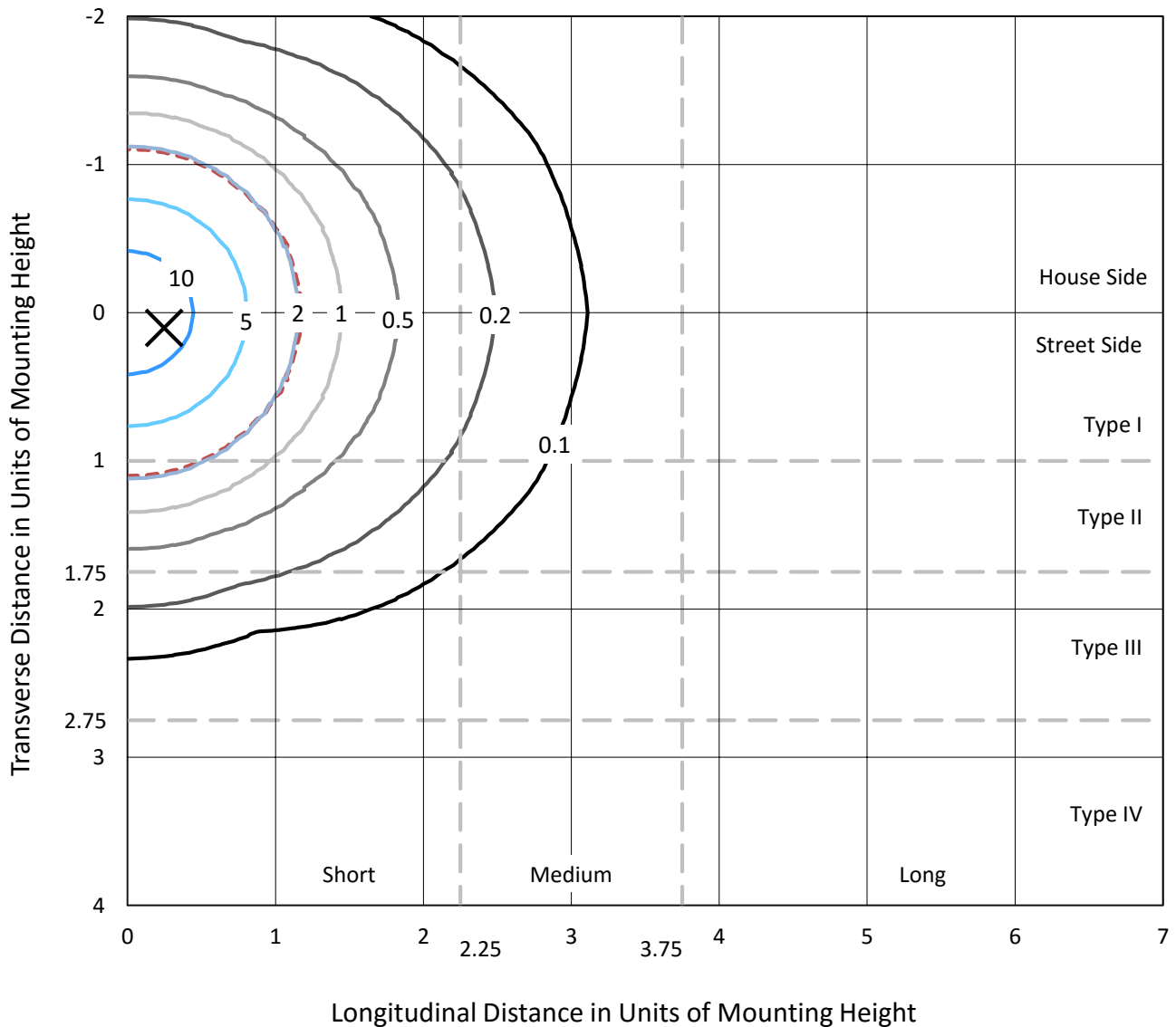
Input Watts (W): 77
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: 8004.0
 CATALOG NUMBER: FRS-240BX-120

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

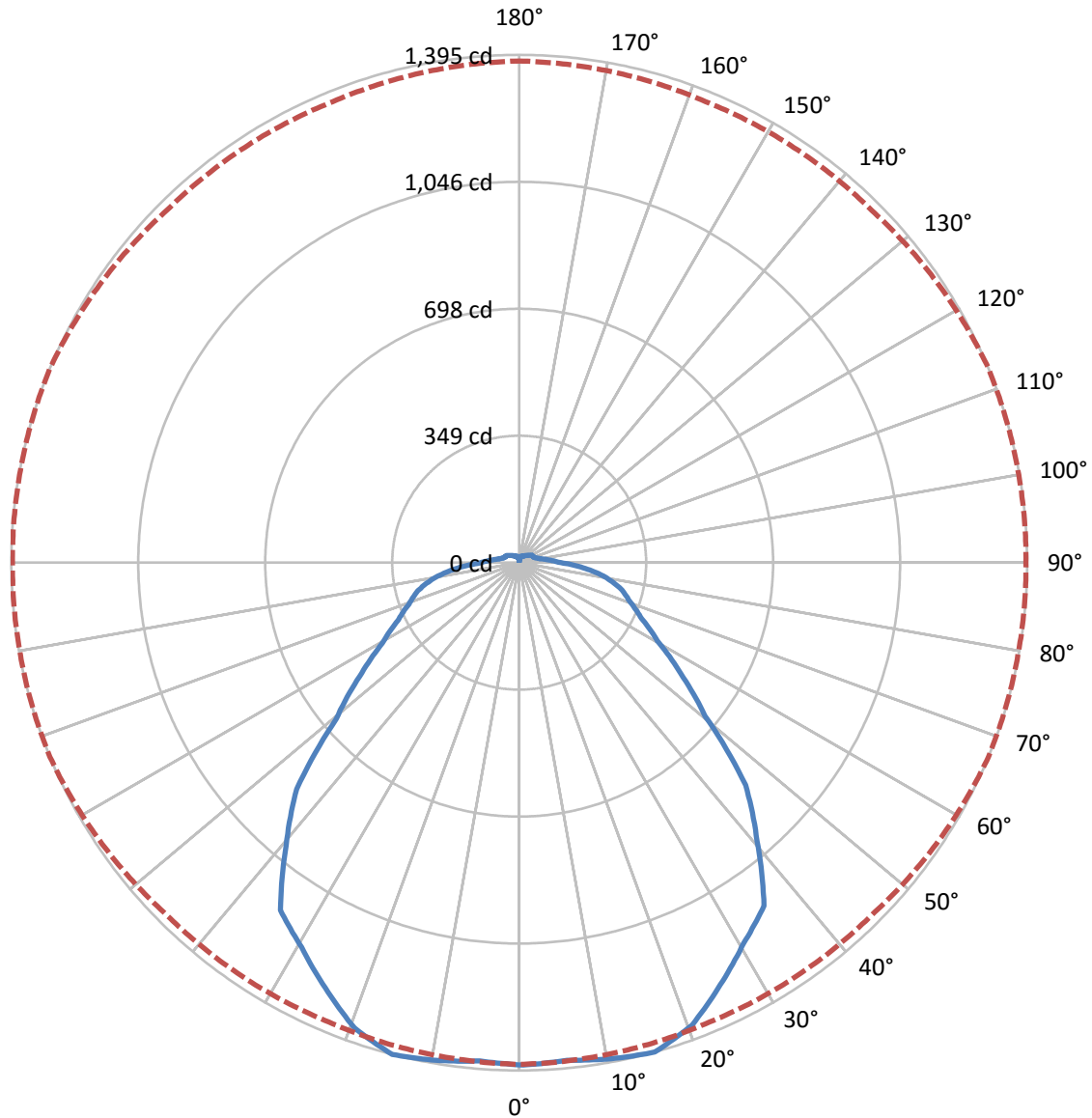


Based on 10 foot mounting height. Maximum calculated value = 13.8 fc
 Type V - Short - Cutoff



REPORT NUMBER: 8004.0
CATALOG NUMBER: FRS-240BX-120

Luminous Intensity Polar Plot



— Vertical Plane Through 67.5-Deg Lateral - - - Horizontal Cone Through 15-Deg Vertical



REPORT NUMBER: 8004.0

CATALOG NUMBER: FRS-240BX-120

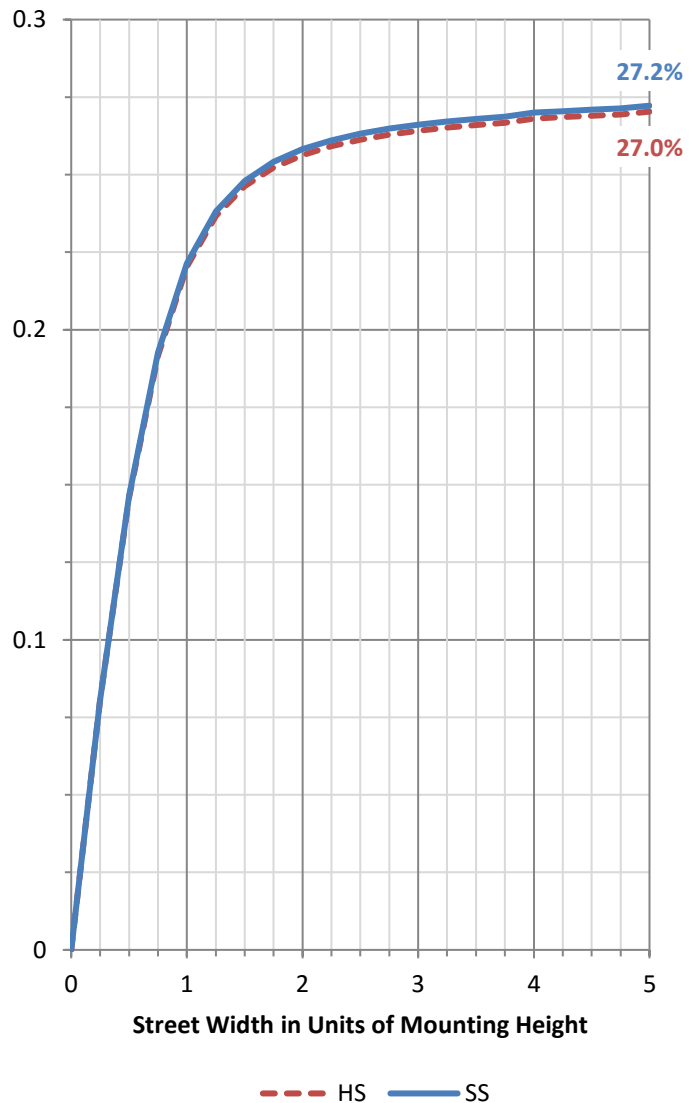
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1734.2	84.6	1818.8
	% Lamp	27.5	1.3	28.9
Street Side	Lumens	1734.2	84.6	1818.8
	% Lamp	27.5	1.3	28.9
Total	Lumens	3468.5	169.1	3637.6
	% Lamp	55.1	2.7	57.7

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	131.2	3.6	2.1
10°-20°	386.7	10.6	6.1
20°-30°	582.1	16.0	9.2
30°-40°	686.6	18.9	10.9
40°-50°	636.8	17.5	10.1
50°-60°	434.6	11.9	6.9
60°-70°	286.7	7.9	4.6
70°-80°	203.0	5.6	3.2
80°-90°	120.9	3.3	1.9
90°-100°	55.4	1.5	0.9
100°-110°	33.1	0.9	0.5
110°-120°	25.5	0.7	0.4
120°-130°	20.1	0.6	0.3
130°-140°	14.3	0.4	0.2
140°-150°	10.1	0.3	0.2
150°-160°	6.4	0.2	0.1
160°-170°	3.5	0.1	0.1
170°-180°	0.8	0.0	0.0
0°-90°	3468.5	95.4	55.1
0°-180°	3637.6	100.0	57.7





REPORT NUMBER: 8004.0

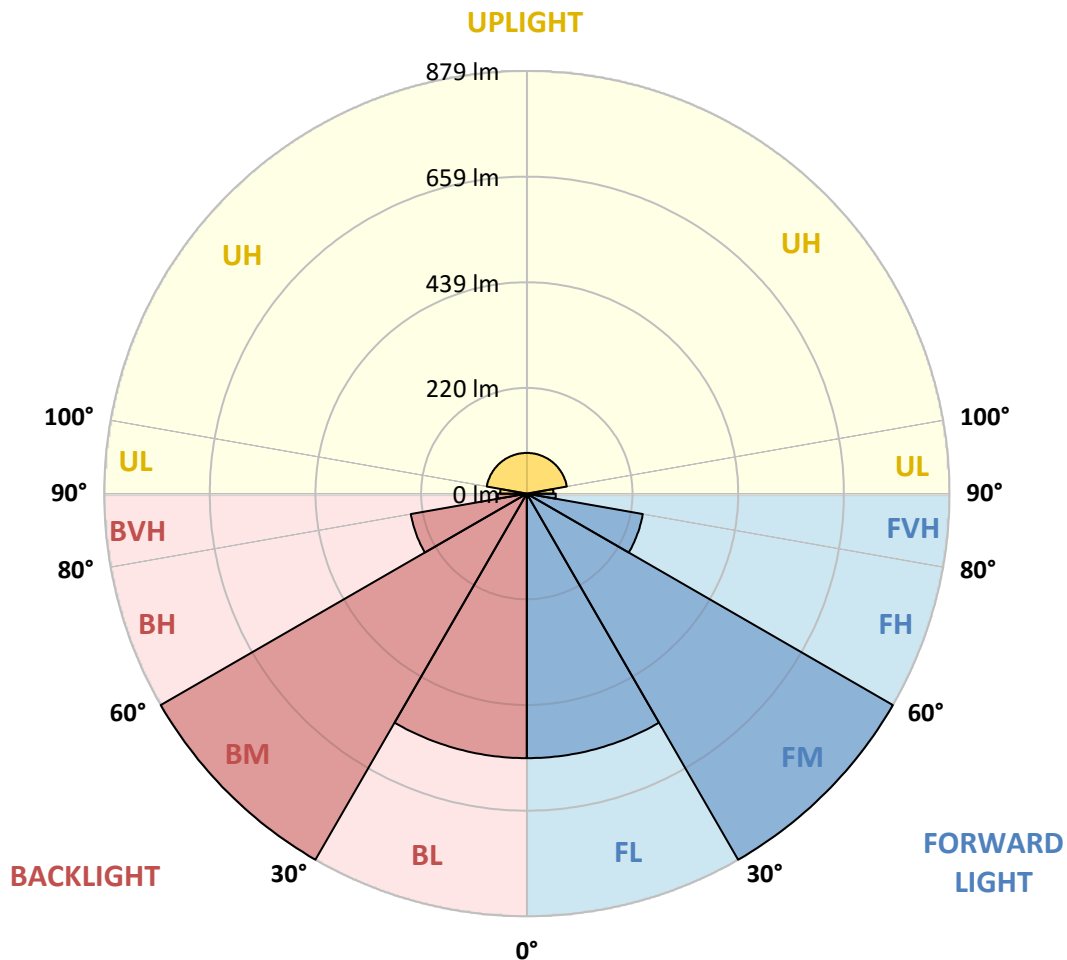
CATALOG NUMBER: FRS-240BX-120

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	550.0	8.7			
FM	(30°-60°)	878.9	14.0			
FH	(60°-80°)	244.8	3.9			G0/660
FVH	(80°-90°)	60.4	1.0			G1/100
BL	(0°-30°)	550.0	8.7	B2/1000		
BM	(30°-60°)	878.9	14.0	B1/1000		
BH	(60°-80°)	244.8	3.9	B1/500		G0/660
BVH	(80°-90°)	60.4	1.0			G1/100
UL	(90°-100°)	55.4	0.9		U3/500	
UH	(100°-180°)	84.6	1.3		U3/500	
Trapped Light		2662.4	42.3			

BUG Rating: B2-U3-G1

Type V Short





REPORT NUMBER: 8004.0

CATALOG NUMBER: FRS-240BX-120

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1380	1380	1380	1380	1380
5°	1374	1382	1368	1373	1364
10°	1377	1358	1382	1386	1365
15°	1378	1366	1369	1395	1392
20°	1319	1316	1319	1356	1353
25°	1217	1241	1272	1284	1300
30°	1150	1152	1181	1214	1236
35°	1058	1070	1098	1158	1170
40°	932	953	981	1006	1023
45°	802	827	846	872	876
50°	609	612	624	661	659
55°	398	419	476	538	538
60°	281	283	355	436	471
65°	186	183	281	369	412
70°	123	121	228	323	370
75°	81	87	191	289	321
80°	50	63	158	240	265
85°	28	41	121	176	188
90°	0	17	80	108	117
95°	0	13	63	80	87
100°	0	11	48	59	62
105°	0	11	38	48	50
110°	0	11	31	43	44
115°	0	11	28	41	45
120°	0	11	26	40	44
125°	0	11	23	35	40
130°	0	11	22	31	34
135°	0	11	20	28	29
140°	0	11	19	25	25
145°	0	11	19	23	25
150°	0	11	16	20	22
155°	0	11	16	19	20
160°	0	11	14	16	17
165°	0	10	14	19	19
170°	0	10	11	13	13
175°	0	10	10	11	11
180°	0	0	0	0	0

(END OF REPORT)