



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: 8002.0

Luminaire Tested: **FRS-232-120**

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: 8002.0
Test Lab:
Issue Date: 3/3/2020
Manufacturer: EATON (FORMERLY COOPER LIGHTING)
Product Line: FAIL-SAFE
Catalog Number: FRS-232-120
Description: FAIL-SAFE 4'SURFACE MOUNT LUMINAIRE
WHITE REFL W/ PRISMATIC WRAPAROUND LENS
Light Source: 2/32W T8 2850 LUMENS
WATTS=70
F32T8/735/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: 2850 (2 lamps)
Luminaire Lumens: 4063.9 lumens
Efficiency: 71.3%
Efficacy: 58.1 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.92' x L: 3.94' x H: 0.15')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B2 - U3 - G1

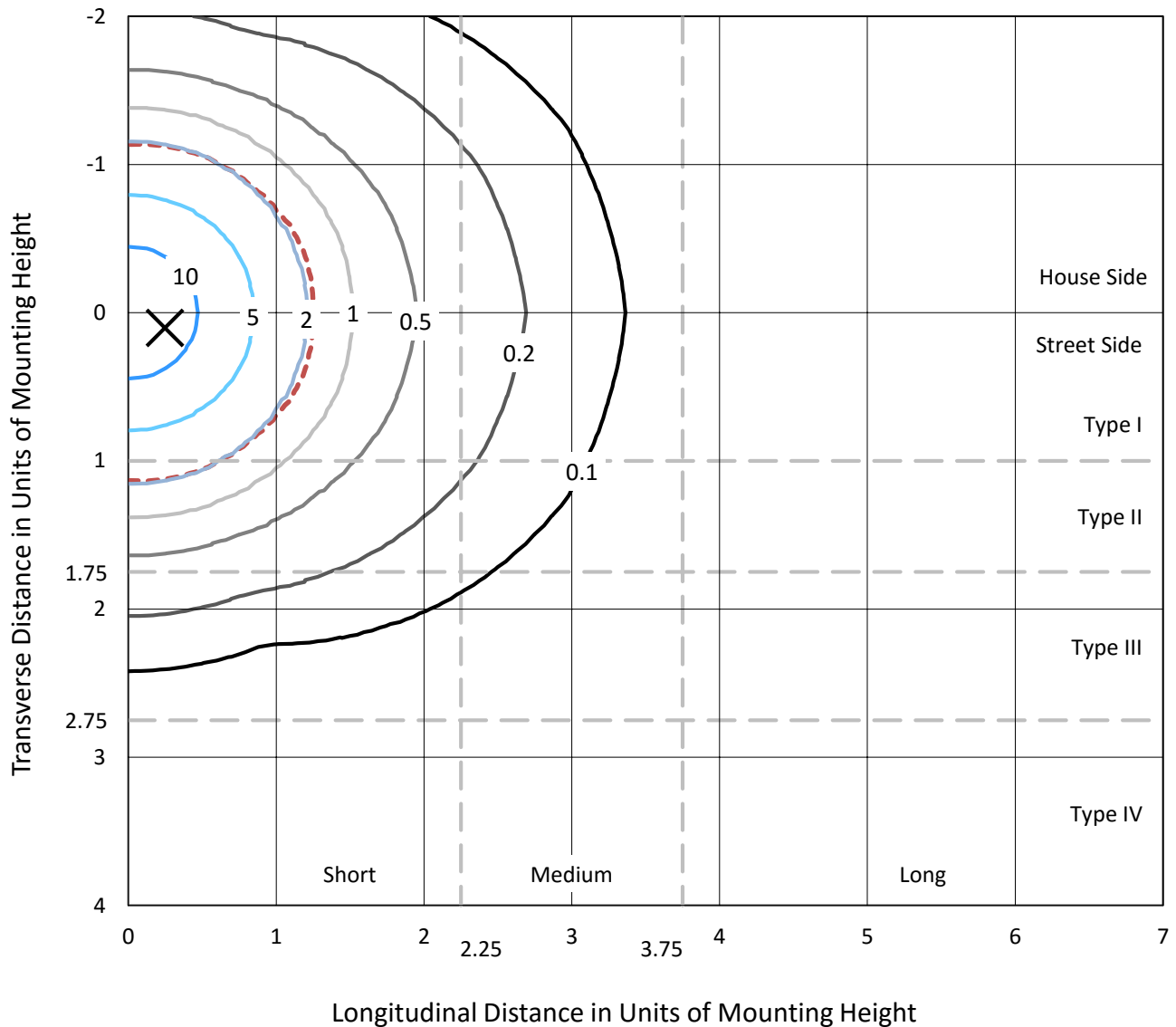
Input Watts (W): 70
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

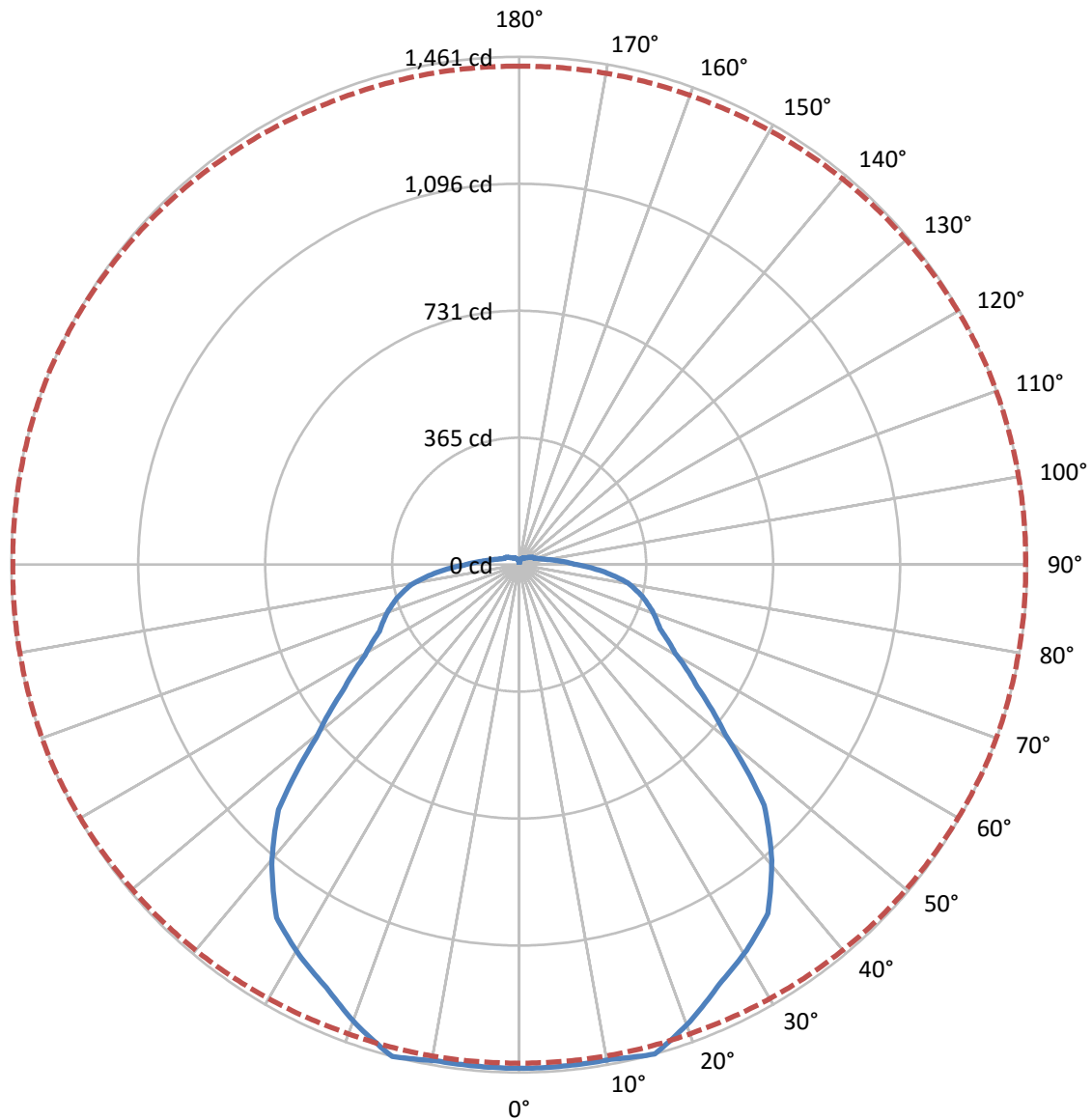


Based on 10 foot mounting height. Maximum calculated value = 14.5 fc
 Type V - Short - Semi-Cutoff



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Luminous Intensity Polar Plot



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



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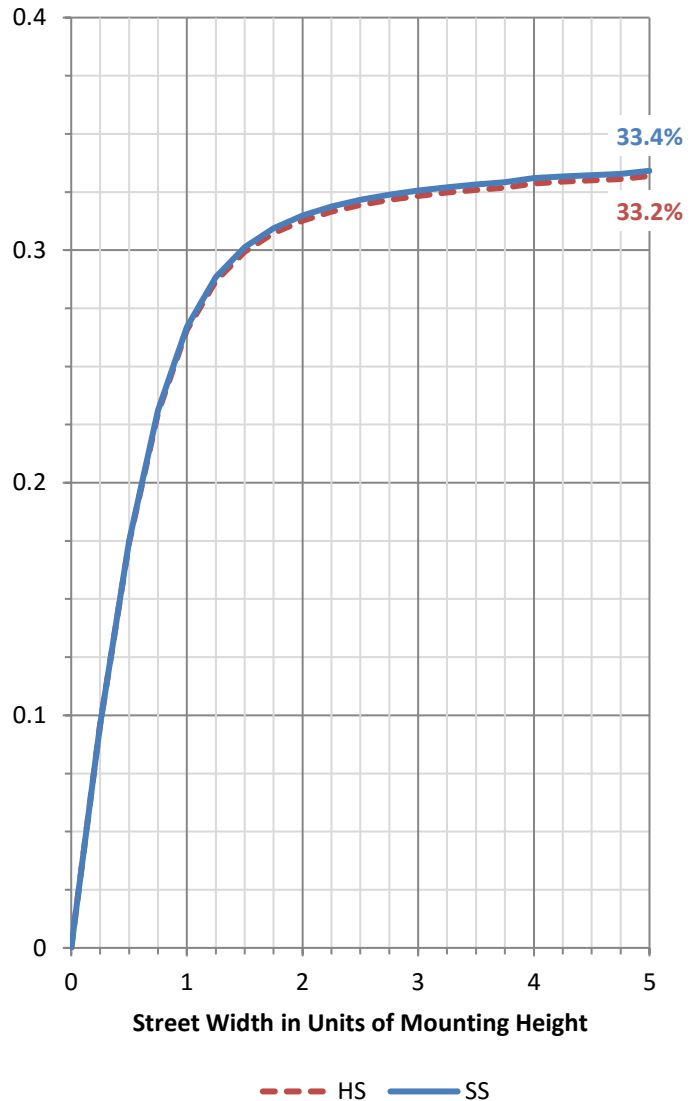
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1930.5	101.4	2031.9
	% Lamp	33.9	1.8	35.6
Street Side	Lumens	1930.5	101.4	2031.9
	% Lamp	33.9	1.8	35.6
Total	Lumens	3861.0	202.9	4063.9
	% Lamp	67.7	3.6	71.3

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	137.5	3.4	2.4
10°-20°	406.0	10.0	7.1
20°-30°	610.4	15.0	10.7
30°-40°	734.5	18.1	12.9
40°-50°	710.9	17.5	12.5
50°-60°	503.8	12.4	8.8
60°-70°	343.4	8.4	6.0
70°-80°	254.6	6.3	4.5
80°-90°	160.0	3.9	2.8
90°-100°	76.1	1.9	1.3
100°-110°	42.1	1.0	0.7
110°-120°	28.0	0.7	0.5
120°-130°	21.1	0.5	0.4
130°-140°	14.6	0.4	0.3
140°-150°	10.3	0.3	0.2
150°-160°	6.5	0.2	0.1
160°-170°	3.4	0.1	0.1
170°-180°	0.8	0.0	0.0
0°-90°	3861.0	95.0	67.7
0°-180°	4063.9	100.0	71.3



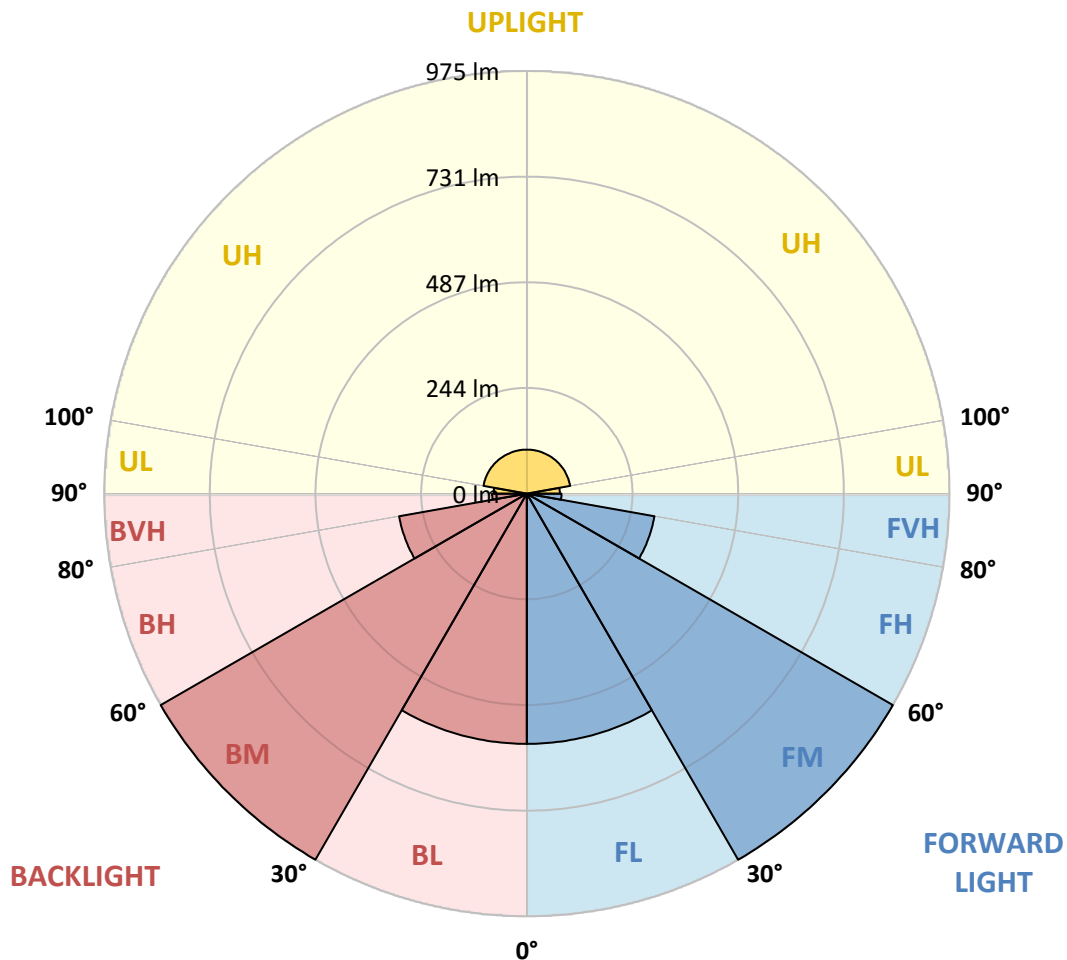


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	576.9	10.1			
FM (30°-60°)	974.6	17.1			
FH (60°-80°)	299.0	5.2			G0/660
FVH (80°-90°)	80.0	1.4			G1/100
BL (0°-30°)	576.9	10.1	B2/1000		
BM (30°-60°)	974.6	17.1	B1/1000		
BH (60°-80°)	299.0	5.2	B1/500		G0/660
BVH (80°-90°)	80.0	1.4			G1/100
UL (90°-100°)	76.1	1.3		U3/500	
UH (100°-180°)	101.4	1.8		U3/500	
Trapped Light	1636.1	28.7			

BUG Rating: B2-U3-G1
 Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1449	1449	1449	1449	1449
5°	1434	1431	1436	1448	1439
10°	1435	1434	1439	1447	1448
15°	1434	1437	1451	1461	1457
20°	1375	1399	1398	1403	1411
25°	1294	1301	1323	1337	1350
30°	1204	1217	1241	1288	1299
35°	1120	1135	1182	1232	1261
40°	994	1023	1069	1119	1135
45°	870	911	949	988	995
50°	672	701	722	768	767
55°	455	488	556	622	627
60°	311	329	422	515	551
65°	215	216	334	445	505
70°	143	145	280	408	469
75°	93	103	238	366	415
80°	57	76	199	316	347
85°	30	50	155	239	262
90°	0	22	107	158	175
95°	0	15	80	113	125
100°	0	12	63	81	89
105°	0	11	48	63	66
110°	0	11	37	51	53
115°	0	11	30	45	48
120°	0	11	28	43	47
125°	0	11	25	37	43
130°	0	11	22	31	34
135°	0	12	21	28	30
140°	0	11	18	25	27
145°	0	12	18	24	27
150°	0	11	17	21	22
155°	0	11	15	20	21
160°	0	11	14	17	17
165°	0	11	14	16	16
170°	0	10	11	12	12
175°	0	10	11	11	11
180°	0	0	0	0	0

(END OF REPORT)