



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: 1824.1

Luminaire Tested: **FWS-240-9X48**

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: 1824.1
Test Lab:
Issue Date: 3/3/2020
Manufacturer: EATON (FORMERLY COOPER LIGHTING)
Product Line: FAIL-SAFE
Catalog Number: FWS-240-9X48
Description: FAIL-SAFE 2/40 CEILING MOUNT BALL
Light Source: F40T12RS/WW 3150 LUMENS
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: 2599.1 lumens
Efficiency: 41.3%
Efficacy: 27.1 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.66' x L: 4' x H: 0.25')
IES Classification: Type V - Short - Cutoff
BUG Rating: B1 - U3 - G1

Input Watts (W): 96
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

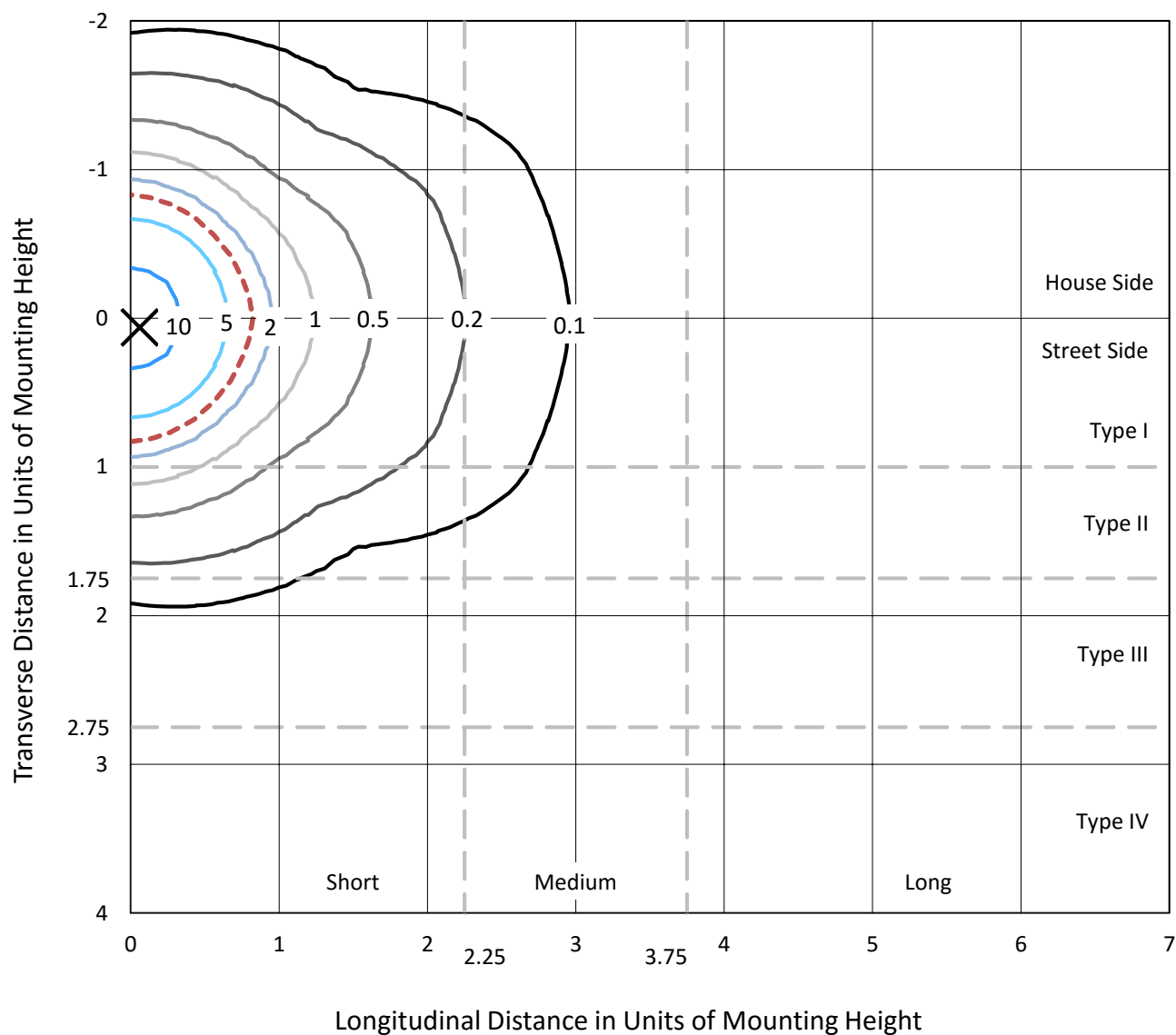


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd

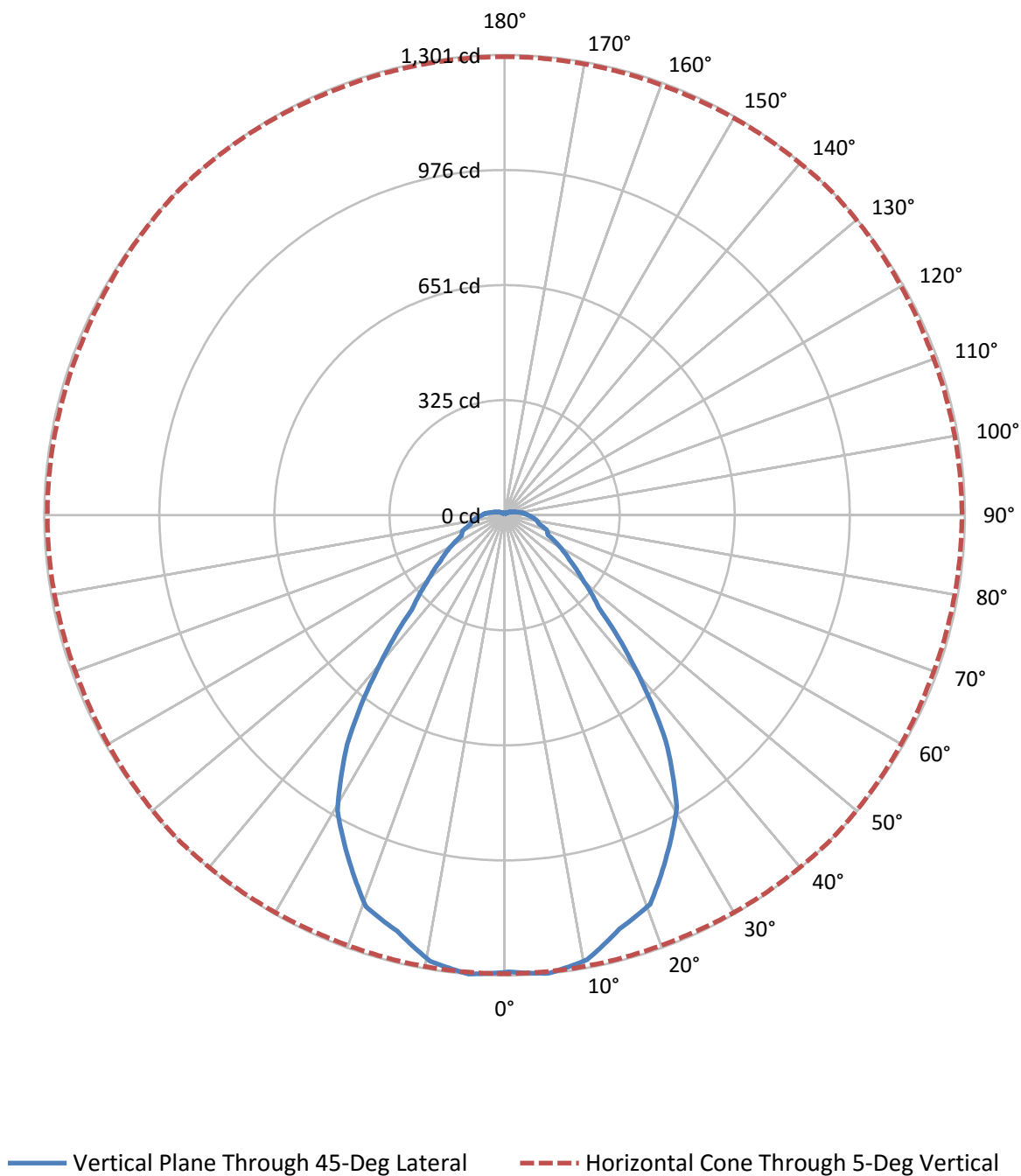
--- 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.9 fc
 Type V - Short - Cutoff

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Luminous Intensity Polar Plot



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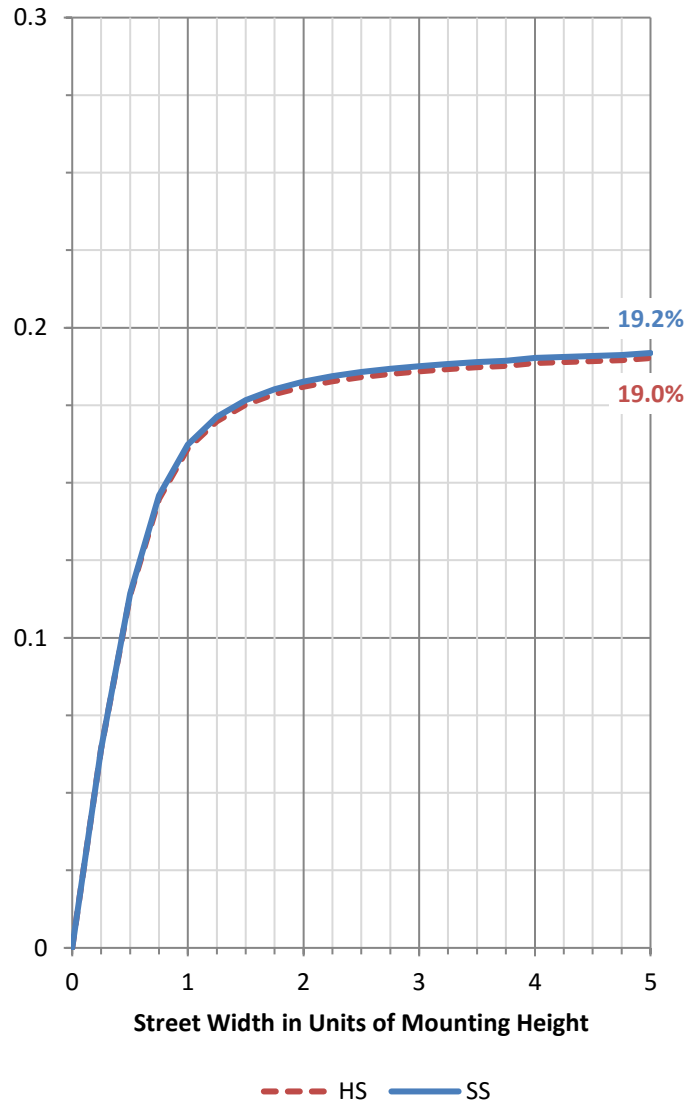
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1223.9	75.6	1299.5
	% Lamp	19.4	1.2	20.6
Street Side	Lumens	1223.9	75.6	1299.5
	% Lamp	19.4	1.2	20.6
Total	Lumens	2447.8	151.3	2599.1
	% Lamp	38.9	2.4	41.3

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	122.9	4.7	2.0
10°-20°	343.8	13.2	5.5
20°-30°	491.8	18.9	7.8
30°-40°	490.3	18.9	7.8
40°-50°	333.7	12.8	5.3
50°-60°	235.5	9.1	3.7
60°-70°	183.4	7.1	2.9
70°-80°	146.1	5.6	2.3
80°-90°	100.2	3.9	1.6
90°-100°	59.7	2.3	0.9
100°-110°	36.5	1.4	0.6
110°-120°	23.8	0.9	0.4
120°-130°	15.3	0.6	0.2
130°-140°	7.6	0.3	0.1
140°-150°	4.6	0.2	0.1
150°-160°	2.5	0.1	0.0
160°-170°	1.0	0.0	0.0
170°-180°	0.2	0.0	0.0
0°-90°	2447.8	94.2	38.9
0°-180°	2599.1	100.0	41.3



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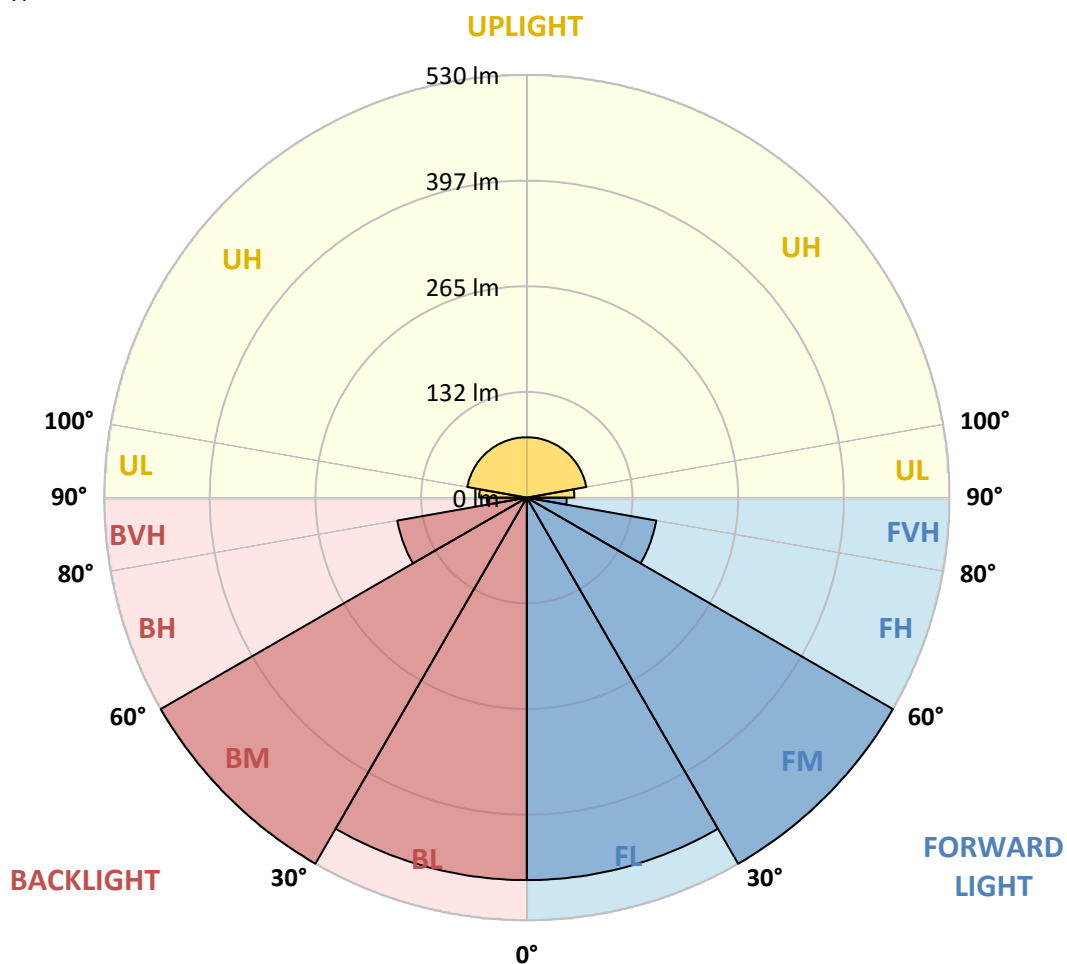
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	479.3	7.6			
FM	(30°-60°)	529.8	8.4			
FH	(60°-80°)	164.7	2.6			G0/660
FVH	(80°-90°)	50.1	0.8			G1/100
BL	(0°-30°)	479.3	7.6	B1/500		
BM	(30°-60°)	529.8	8.4	B1/1000		
BH	(60°-80°)	164.7	2.6	B1/500		G0/660
BVH	(80°-90°)	50.1	0.8			G1/100
UL	(90°-100°)	59.7	0.9		U3/500	
UH	(100°-180°)	75.6	1.2		U3/500	
Trapped Light		3700.9	58.7			

BUG Rating: B1-U3-G1

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1291	1291	1291	1291	1291
5°	1296	1294	1301	1291	1293
10°	1276	1276	1278	1275	1276
15°	1213	1211	1214	1208	1207
20°	1174	1179	1174	1163	1165
25°	1073	1082	1065	1060	1061
30°	980	974	959	947	950
35°	829	817	785	768	777
40°	636	600	566	589	628
45°	414	385	374	432	476
50°	291	280	286	364	417
55°	192	200	223	325	375
60°	123	149	178	307	342
65°	77	105	135	275	299
70°	69	82	127	283	322
75°	50	54	101	224	260
80°	31	42	93	197	218
85°	16	26	79	166	181
90°	0	11	65	128	141
95°	0	7	56	99	109
100°	0	9	44	74	81
105°	0	8	32	58	65
110°	0	8	29	55	63
115°	0	5	19	39	47
120°	0	8	19	37	46
125°	0	6	15	28	37
130°	0	3	11	22	29
135°	0	2	8	16	21
140°	0	2	9	13	17
145°	0	3	9	11	13
150°	0	4	8	10	8
155°	0	2	7	8	7
160°	0	1	5	7	8
165°	0	1	4	6	6
170°	0	1	4	4	5
175°	0	0	3	3	4
180°	0	0	0	0	0

(END OF REPORT)