



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: P212939

Luminaire Tested: **FPS-4-LD4-2LO-40-OPL**

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: P212939  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35490-R3)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: EATON (FORMERLY COOPER LIGHTING)  
Product Line: FAIL-SAFE  
Catalog Number: FPS-4-LD4-2LO-40-OPL  
Description: FPS 4' LED FIXTURE WITH OPAL LENS  
Light Source: (168) EATON 4000K CCT, 85 CRI LEDS  
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**

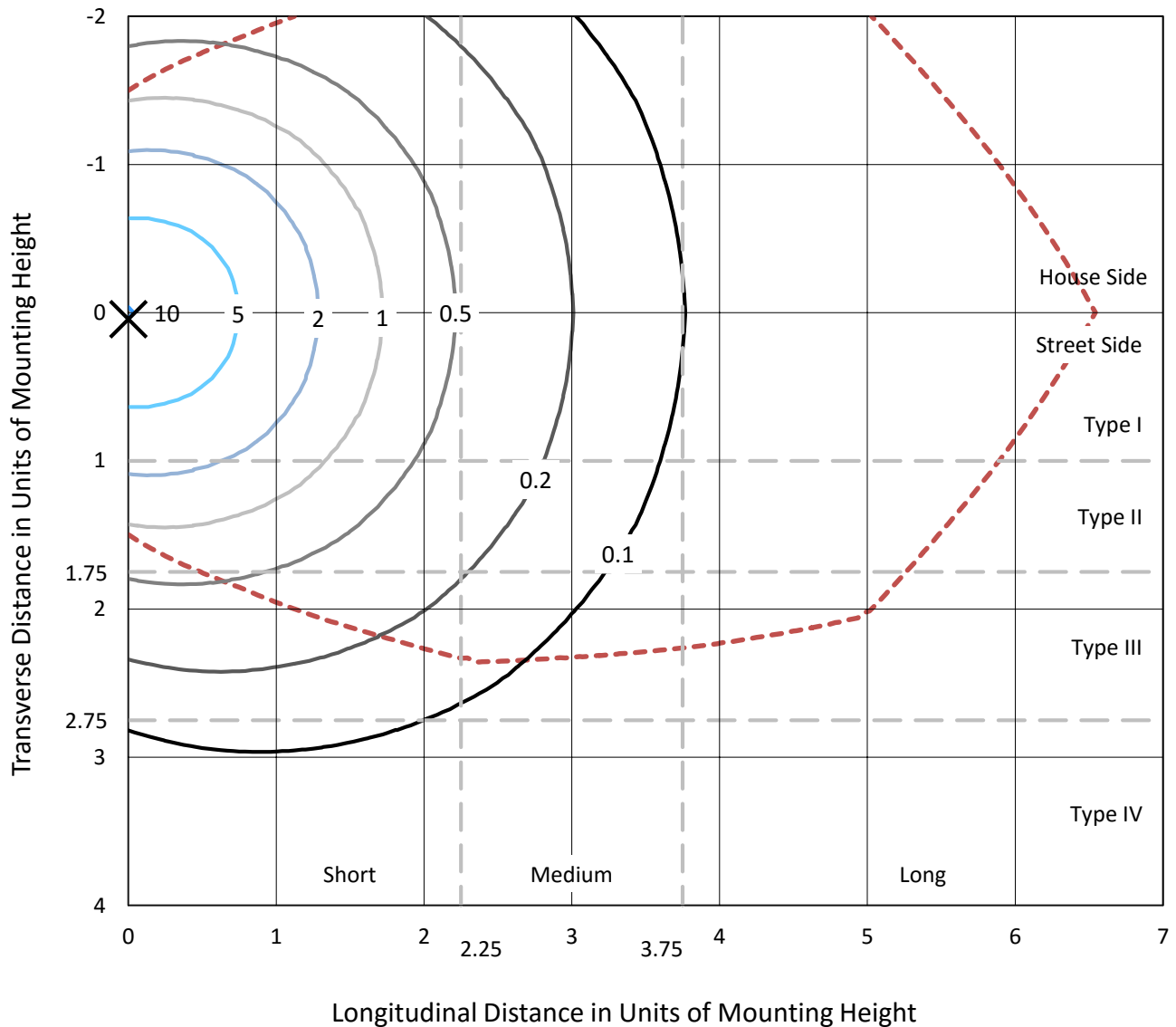
Lumens per Lamp: N/A  
Luminaire Lumens: 4947.9 lumens  
Efficiency: N/A  
Efficacy: 104.9 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 0.58' x L: 4.1' x H: 0.33')  
IES Classification: Type V - Short - Non-Cutoff  
BUG Rating: B2 - U4 - G2  
  
Input Watts (W): 47.16  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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

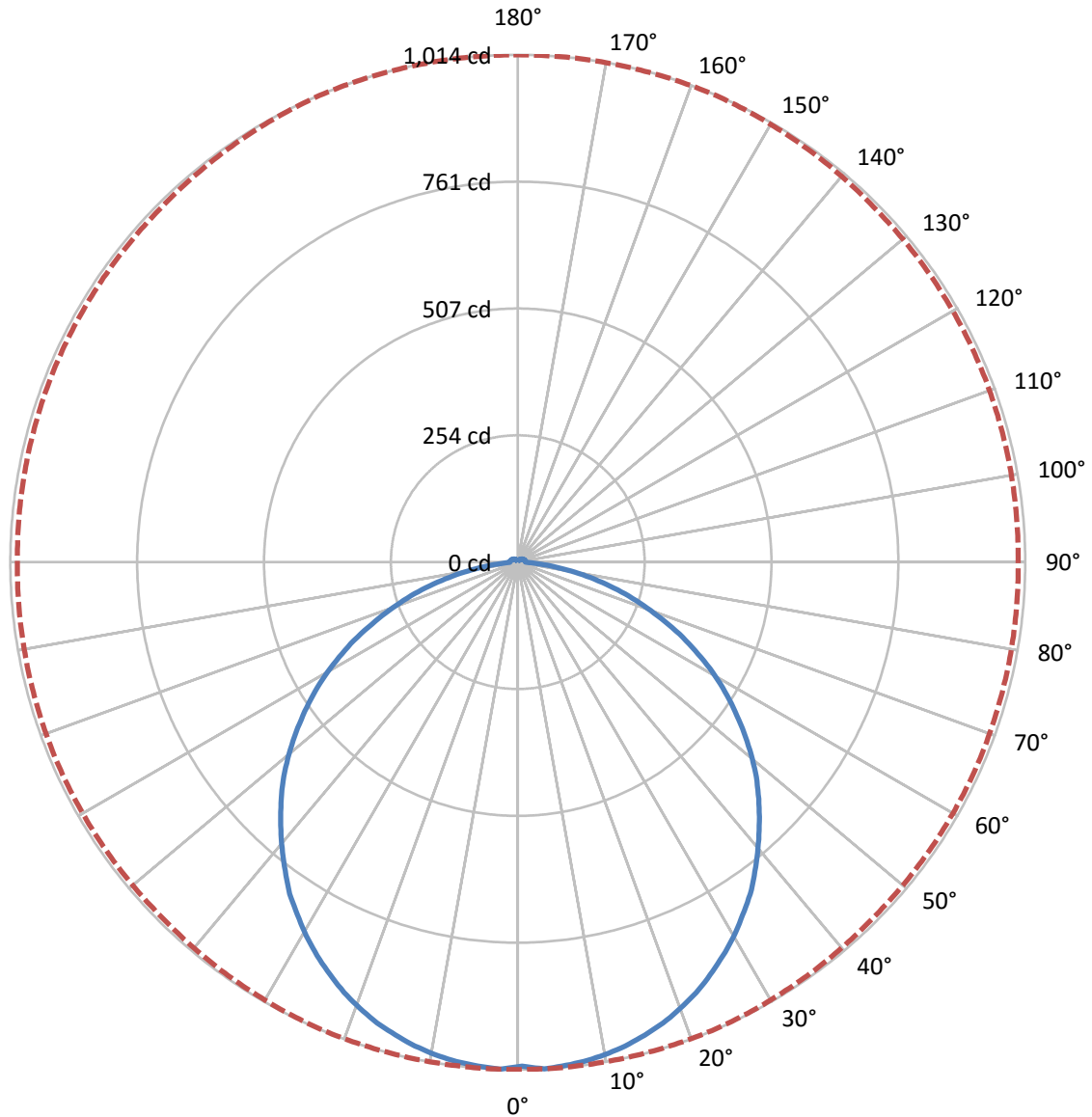


Based on 10 foot mounting height. Maximum calculated value = 10.1 fc  
 Type V - Short - Non-Cutoff



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### Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral      - - - Horizontal Cone Through 2.5-Deg Vertical



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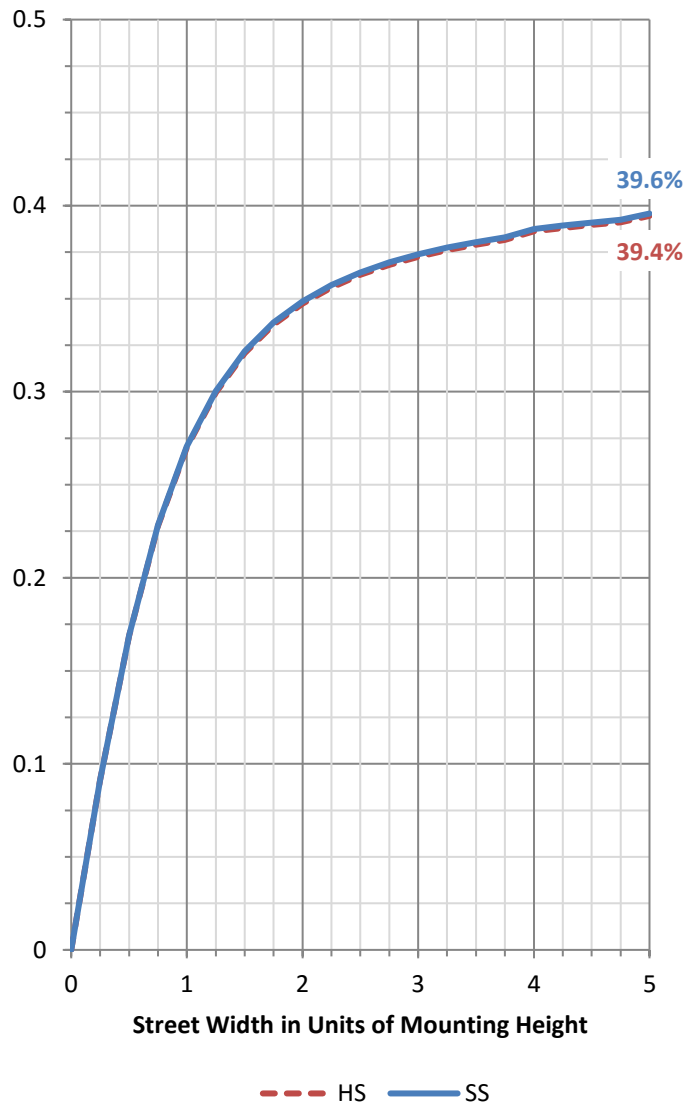
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2031.2	442.8	2474.0
	% Fixture	41.1	8.9	50.0
<b>Street Side</b>	Lumens	2031.2	442.8	2474.0
	% Fixture	41.1	8.9	50.0
<b>Total</b>	Lumens	4062.4	885.6	4947.9
	% Fixture	82.1	17.9	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	96.1	1.9
10°-20°	282.0	5.7
20°-30°	445.5	9.0
30°-40°	567.1	11.5
40°-50°	635.6	12.8
50°-60°	644.1	13.0
60°-70°	583.5	11.8
70°-80°	470.1	9.5
80°-90°	338.5	6.8
90°-100°	261.7	5.3
100°-110°	220.1	4.4
110°-120°	172.0	3.5
120°-130°	121.2	2.5
130°-140°	71.7	1.4
140°-150°	31.9	0.6
150°-160°	6.9	0.1
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-90°	4062.4	82.1
0°-180°	4947.9	100.0





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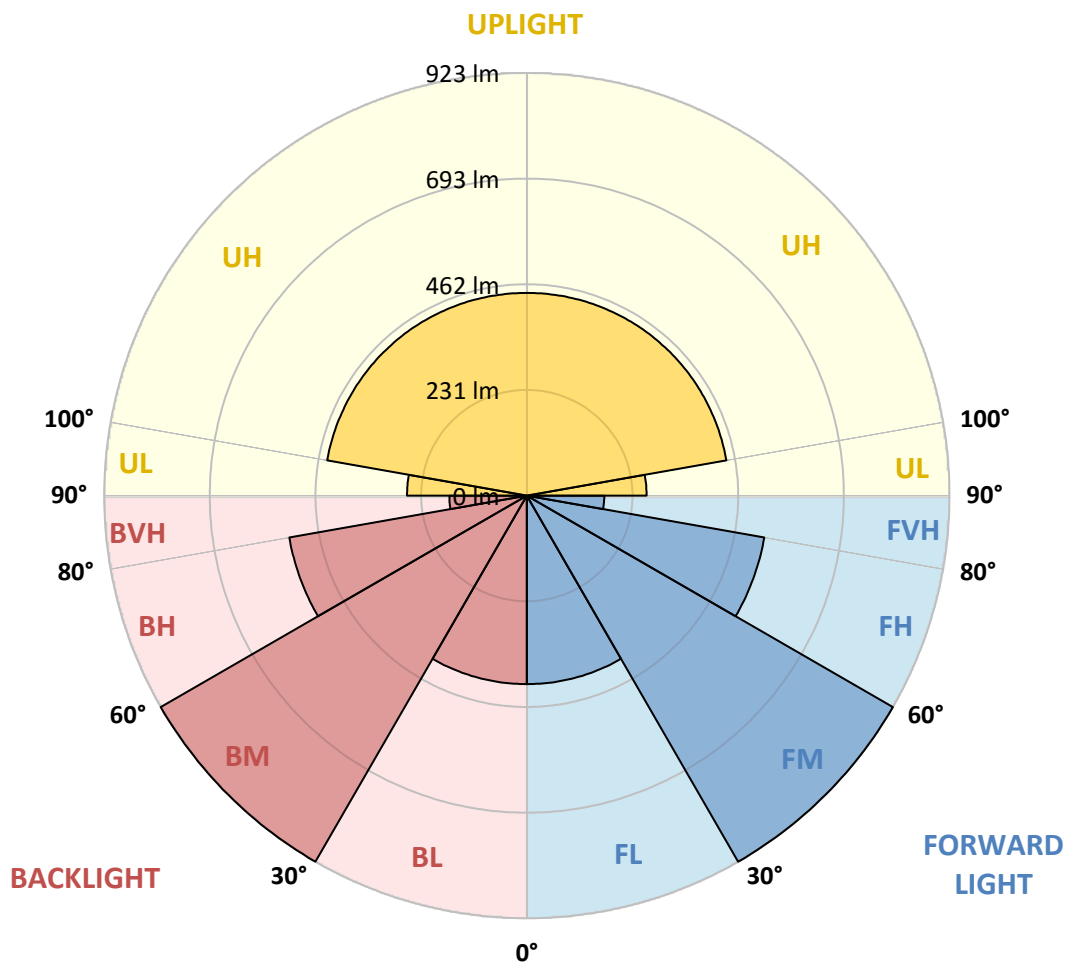
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	411.8	8.3			
FM	(30°-60°)	923.4	18.7			
FH	(60°-80°)	526.8	10.6			G0/660
FVH	(80°-90°)	169.3	3.4			G2/225
BL	(0°-30°)	411.8	8.3	B1/500		
BM	(30°-60°)	923.4	18.7	B1/1000		
BH	(60°-80°)	526.8	10.6	B2/1000		G0/660
BVH	(80°-90°)	169.3	3.4			G2/225
UL	(90°-100°)	261.7	5.3		U3/500	
UH	(100°-180°)	442.8	8.9		U3/500	

**BUG Rating: B2-U4-G2**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1007.4	1007.4	1007.4	1007.4	1007.4
2.5°	1014.1	1013.5	1004.9	1003.7	1000.1
5°	1010.4	1011.1	1004.9	1005.6	1002.5
7.5°	1005.6	1007.4	1004.9	1008.0	1005.6
10°	998.2	1001.9	1003.7	1009.8	1008.0
12.5°	988.5	995.2	1000.7	1009.2	1009.8
15°	976.2	986.0	996.4	1009.2	1011.1
17.5°	962.8	975.6	990.9	1009.8	1013.5
20°	945.7	962.2	984.8	1009.2	1014.1
22.5°	927.4	947.5	978.1	1006.8	1012.9
25°	905.4	932.3	968.9	1002.5	1010.4
27.5°	882.8	912.7	958.5	995.8	1005.6
30°	858.3	893.2	946.9	987.2	997.6
32.5°	830.8	871.8	932.9	976.8	987.8
35°	804.6	847.3	916.4	965.2	979.3
37.5°	772.2	825.3	899.3	952.4	965.2
40°	740.4	798.5	880.9	936.5	951.2
42.5°	708.0	773.4	862.6	920.6	934.1
45°	675.1	746.5	842.4	903.5	918.2
47.5°	641.5	718.4	824.1	887.7	901.7
50°	604.2	689.1	802.7	868.7	880.9
52.5°	566.3	660.4	778.3	846.1	860.8
55°	527.2	628.0	749.6	821.1	835.7
57.5°	488.1	594.4	722.1	794.8	809.5
60°	447.8	559.0	687.9	765.5	783.8
62.5°	404.4	522.9	656.7	736.8	754.5
65°	362.9	486.3	624.4	706.8	723.9
67.5°	316.5	448.4	590.1	672.0	692.2
70°	274.3	410.5	553.5	638.4	659.8
72.5°	232.1	373.3	518.7	604.8	626.2
75°	190.6	335.4	482.0	570.0	593.8
77.5°	148.5	297.5	447.2	535.8	558.4
80°	108.1	260.2	411.8	499.1	524.2
82.5°	70.9	224.2	375.7	466.7	491.2
85°	42.2	192.4	342.1	435.6	461.2
87.5°	22.6	164.3	318.3	414.2	439.2
90°	15.9	145.4	296.9	392.2	417.9
92.5°	15.3	135.6	276.7	370.2	395.9
95°	15.3	131.3	268.2	353.7	377.5
97.5°	15.3	125.8	260.9	345.8	369.6
100°	14.7	119.7	253.5	336.0	360.4
102.5°	14.7	113.6	244.4	325.6	349.4
105°	14.1	106.9	235.2	314.6	337.8
107.5°	14.1	100.8	224.8	302.4	326.2
110°	13.4	94.7	214.4	290.2	314.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	12.8	87.4	205.3	278.6	301.8
115°	12.8	80.6	194.9	266.4	289.0
117.5°	12.2	73.9	184.5	254.1	276.1
120°	11.6	66.6	174.1	241.9	263.3
122.5°	11.0	58.0	163.1	228.5	249.9
125°	11.0	49.5	151.5	215.0	236.4
127.5°	10.4	41.5	139.9	201.0	221.1
130°	9.8	34.2	126.5	186.9	206.5
132.5°	9.2	26.9	112.4	172.3	190.6
135°	8.6	20.2	98.4	157.0	175.9
137.5°	7.9	14.1	84.3	142.3	158.2
140°	7.3	9.2	70.9	126.5	142.3
142.5°	6.7	5.5	57.4	110.0	124.6
145°	6.1	4.3	45.2	92.9	106.9
147.5°	5.5	3.7	33.0	75.8	89.2
150°	4.9	3.1	22.0	58.6	72.1
152.5°	4.3	3.1	11.6	41.5	53.8
155°	3.7	1.8	3.1	25.7	36.7
157.5°	3.7	1.2	0.0	11.6	20.8
160°	3.1	1.2	0.0	1.2	4.3
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)