

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
Cooper Lighting Solutions
(formerly Eaton)

Brand: FAIL-SAFE

Report Number: 4565

Luminaire Tested: **FSW-X8**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: 4565
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FSW-X8
Description: FAIL-SAFE WALL MT WITH PRIS LENS
Light Source: F40T12RS/WW 3200 LUMENS
Ballast/Driver: -

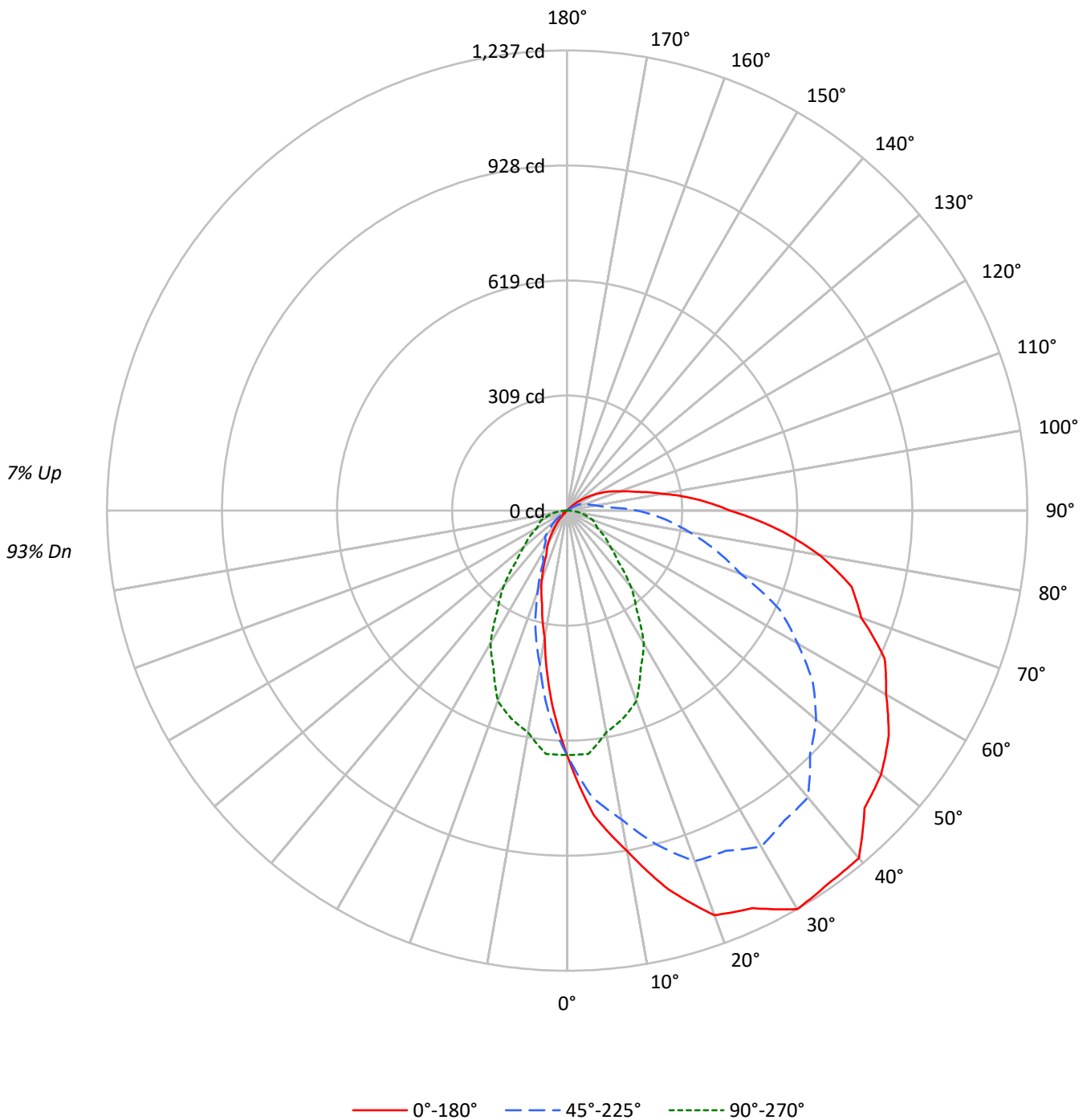
Summary

Lumens per Lamp: 3200 (2 lamps)
Luminaire Lumens: 2351.0 lumens
Efficiency: 36.7%
Efficacy: 25.0 lumens/watt
Spacing Criteria (0/90/45): 1.49 / 0.98 / 1.46
Luminous Opening: Rectangular w/ Sides (W: 3.96' x L: 0.29' x H: 0.29')
CIE Type: Direct

Input Watts (W): 94
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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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20	
RC	80					70					50					30					10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR																						
0	43	43	43	43	42	42	42	42	39	39	39	37	37	37	35	35	35	34				34
1	38	36	34	33	37	35	33	32	33	32	30	31	30	29	29	29	28	27				27
2	35	31	28	26	33	30	28	25	28	26	24	27	25	23	25	24	23	22				22
3	31	27	24	21	30	26	23	21	25	22	20	23	21	19	22	20	19	18				18
4	29	24	20	18	28	23	20	17	22	19	17	21	18	16	20	18	16	15				15
5	26	21	18	15	25	21	17	15	20	17	15	19	16	14	18	15	14	13				13
6	24	19	16	13	23	19	15	13	18	15	13	17	14	12	16	14	12	11				11
7	22	17	14	12	22	17	14	11	16	13	11	15	13	11	15	12	11	10				10
8	21	16	12	10	20	15	12	10	15	12	10	14	11	10	13	11	9	9				9
9	19	14	11	9	19	14	11	9	13	11	9	13	10	9	12	10	9	8				8
10	18	13	10	8	18	13	10	8	12	10	8	12	10	8	11	9	8	7				7

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	6158	6158	6158
5°	7108	6137	4361
10°	7518	5688	2808
15°	8071	5511	1999
20°	8465	5293	1462
25°	8317	4679	935
30°	8489	4279	707
35°	8238	3544	444
40°	8114	3071	252
45°	7494	2399	42
50°	7332	2039	94
55°	7103	1833	81
60°	6794	1555	38
65°	6643	1595	37
70°	6154	1659	0
75°	6059	1485	0
80°	5575	1419	0
85°	4906	1183	0



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	45°	90°	135°	180°	Flux
0°-10°	62.0	2.6	1.0	0°	657	657	657	657	657	
10°-20°	177.1	7.5	2.8	5°	822	773	656	552	504	80
20°-30°	268.4	11.4	4.2	15°	1055	930	579	328	261	300
30°-40°	329.2	14.0	5.1	25°	1179	1009	468	151	132	551
40°-50°	342.6	14.6	5.4	35°	1224	1018	326	100	66	770
50°-60°	332.4	14.1	5.2	45°	1131	924	194	63	6	886
60°-70°	292.1	12.4	4.6	55°	1056	806	124	12	12	942
70°-80°	229.9	9.8	3.6	65°	942	630	83	5	5	921
80°-90°	158.7	6.7	2.5	75°	792	413	52	0	0	823
90°-100°	85.9	3.7	1.3	85°	567	262	20	0	0	488
100°-110°	40.0	1.7	0.6	90°	437	188	0	0	0	245
110°-120°	22.1	0.9	0.3	95°	349	103	0	0	0	267
120°-130°	9.0	0.4	0.1	105°	194	61	0	0	0	211
130°-140°	1.6	0.1	0.0	115°	120	47	0	0	0	119
140°-150°	0.0	0.0	0.0	125°	60	0	0	0	0	54
150°-160°	0.0	0.0	0.0	135°	13	0	0	0	0	12
160°-170°	0.0	0.0	0.0	145°	0	0	0	0	0	0
170°-180°	0.0	0.0	0.0	155°	0	0	0	0	0	0
0°-30°	507.6	21.6	7.9	165°	0	0	0	0	0	0
0°-40°	836.8	35.6	13.1	175°	0	0	0	0	0	0
0°-60°	1511.8	64.3	23.6	180°	0	0	0	0	0	0
0°-90°	2192.5	93.3	34.3							
90°-120°	148.0	6.3	2.3							
90°-150°	158.5	6.7	2.5							
90°-180°	159.0	6.8	2.5							
0°-180°	2351.0	100.0	36.7							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0	657.0
5°	821.6	810.1	773.4	724.4	656.4	608.9	552.3	518.7	504.1
10°	929.2	913.2	842.8	738.1	605.3	507.8	421.4	367.0	347.0
15°	1054.6	1033.4	929.8	778.3	579.1	441.0	328.5	272.7	261.2
20°	1157.5	1121.2	1003.2	797.7	544.8	358.9	231.5	199.9	199.9
25°	1179.2	1146.3	1009.1	761.1	467.9	251.8	151.3	141.9	132.5
30°	1237.2	1191.6	1043.0	742.3	412.1	188.3	127.5	119.1	103.0
35°	1224.1	1179.9	1017.5	682.9	325.6	131.7	100.1	88.4	65.9
40°	1219.6	1176.1	1006.7	631.0	266.4	109.3	92.5	54.6	37.9
45°	1130.7	1092.1	923.6	532.6	194.2	87.5	63.0	19.3	6.4
50°	1102.0	1060.8	873.4	478.6	152.0	89.5	41.2	7.1	14.2
55°	1055.5	1008.1	806.5	415.4	123.9	82.6	12.1	6.1	12.1
60°	990.2	940.7	715.4	330.1	93.5	49.6	5.6	5.6	5.6
65°	941.9	884.3	630.5	285.9	83.2	25.6	5.3	5.3	5.3
70°	841.5	772.5	495.8	227.4	72.7	4.7	4.7	4.7	0.0
75°	791.7	698.9	413.4	193.6	52.2	0.0	0.0	0.0	0.0
80°	689.1	581.7	334.0	152.2	37.2	0.0	0.0	0.0	0.0
85°	567.1	476.3	262.5	122.9	20.2	0.0	0.0	0.0	0.0
90°	437.4	376.2	187.7	93.0	0.0	0.0	0.0	0.0	0.0
95°	349.2	266.7	102.7	65.6	0.0	0.0	0.0	0.0	0.0
100°	259.6	173.3	78.6	40.6	0.0	0.0	0.0	0.0	0.0
105°	193.6	105.4	61.2	21.6	0.0	0.0	0.0	0.0	0.0
110°	150.0	86.7	54.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	119.5	77.9	46.9	0.0	0.0	0.0	0.0	0.0	0.0
120°	87.9	59.7	21.4	0.0	0.0	0.0	0.0	0.0	0.0
125°	59.5	47.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	34.1	21.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	12.9	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)