

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: 6418.0

Luminaire Tested: **FAS-X10-340-120**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: 6418.0  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FAS-X10-340-120  
Description: FAIL-SAFE SURFACE MOUNT SECURITY FIXT -  
WHITE REFLECTOR W/.125 PRIS & .25 POLYCARB LENS  
Light Source: 3/40W BIAX LAMPS F40BX/SPX35/RS  
LUM. WATTS=121 REFL=91%  
Ballast/Driver: -

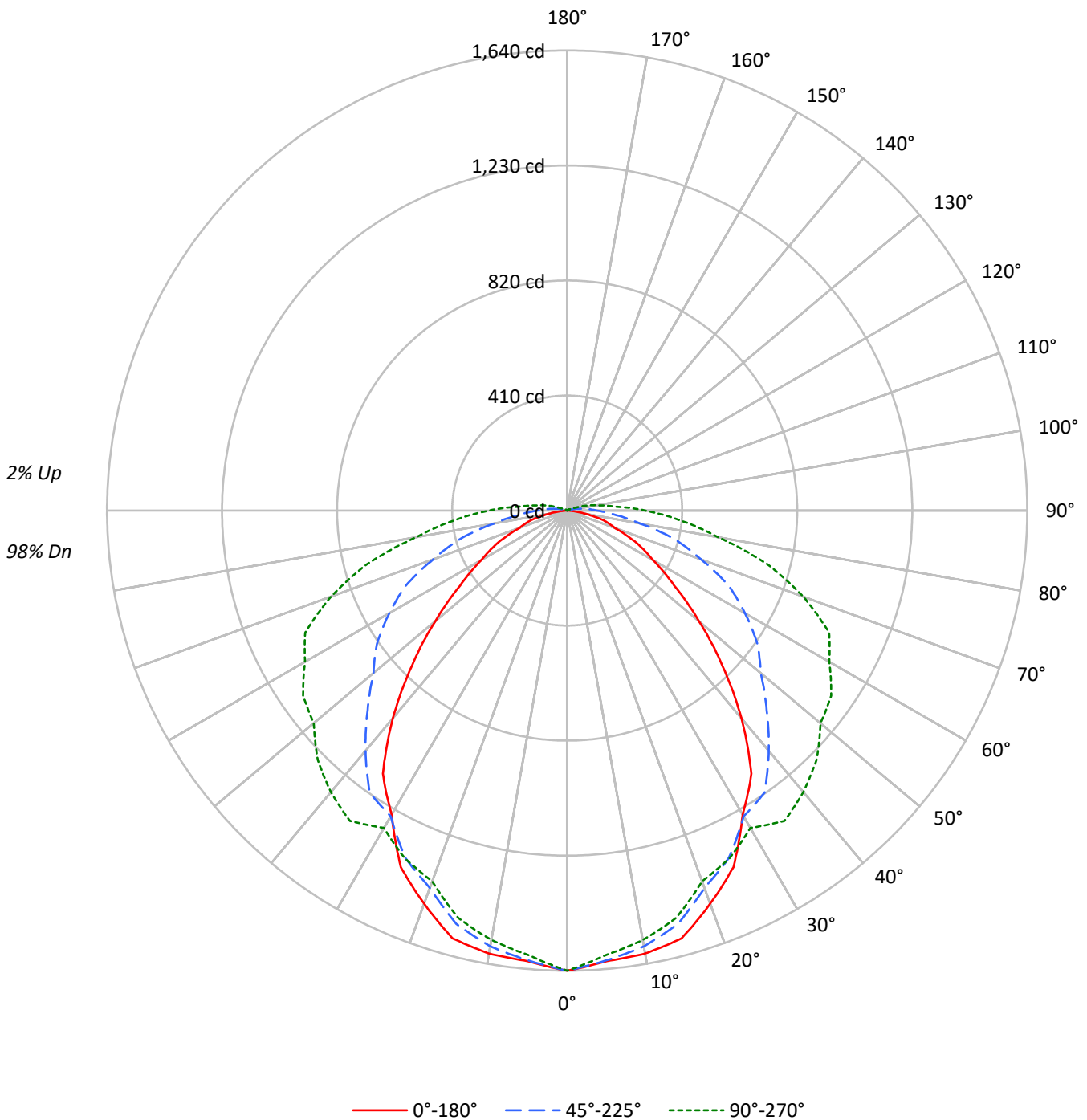
**Summary**

Lumens per Lamp: 3150 (3 lamps)  
Luminaire Lumens: 4889.8 lumens  
Efficiency: 51.7%  
Efficacy: 40.4 lumens/watt  
Spacing Criteria (0/90/45): 1.15 / 1.22 / 1.33  
Luminous Opening: Rectangular (W 0.94' x L: 1.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 121  
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

TEST NUMBER: 6418.0  
CATALOG NUMBER: FAS-X10-340-120

### 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	0
RCR																		
0	61	61	61	61	60	60	60	60	57	57	57	54	54	54	52	52	52	50
1	55	52	50	48	54	51	49	47	49	47	45	46	45	43	44	43	42	41
2	50	45	41	38	48	44	41	38	42	39	37	40	38	36	38	36	35	33
3	45	40	35	31	44	39	34	31	37	33	30	35	32	30	34	31	29	28
4	41	35	30	27	40	34	30	26	33	29	26	31	28	25	30	27	25	24
5	38	31	26	23	37	30	26	23	29	25	22	28	25	22	27	24	21	20
6	35	28	23	20	34	27	23	20	26	22	19	25	22	19	24	21	19	18
7	33	25	21	17	32	25	20	17	24	20	17	23	20	17	22	19	17	16
8	30	23	19	16	29	23	18	15	22	18	15	21	18	15	20	17	15	14
9	28	21	17	14	28	21	17	14	20	16	14	20	16	14	19	16	13	13
10	27	20	15	13	26	19	15	13	19	15	12	18	15	12	18	14	12	11

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	10267	10267	10267
5°	10130	10112	9992
10°	10190	10025	9879
15°	10227	9884	9741
20°	9933	9534	9367
25°	9685	9429	9450
30°	9043	9094	9441
35°	8751	9377	10317
40°	7895	9137	10706
45°	6932	8907	11129
50°	5970	8775	11483
55°	5086	9037	12541
60°	4432	9165	13510
65°	4044	9421	15258
70°	3313	9280	16382
75°	3265	9651	17875
80°	2343	9482	19649
85°	1293	12211	29163



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**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	152.6	3.1	1.6	0°	1640	1640	1640	1640	1640	
10°-20°	429.7	8.8	4.5	5°	1612	1610	1609	1595	1590	154
20°-30°	629.3	12.9	6.7	15°	1578	1558	1525	1511	1503	442
30°-40°	762.3	15.6	8.1	25°	1402	1386	1365	1363	1368	639
40°-50°	784.7	16.0	8.3	35°	1145	1162	1227	1296	1350	705
50°-60°	730.5	14.9	7.7	45°	783	839	1006	1193	1257	606
60°-70°	627.1	12.8	6.6	55°	466	569	828	1066	1149	424
70°-80°	432.3	8.8	4.6	65°	273	372	636	915	1030	267
80°-90°	221.4	4.5	2.3	75°	135	189	399	635	739	136
90°-100°	86.8	1.8	0.9	85°	18	78	170	334	406	26
100°-110°	27.1	0.6	0.3	90°	0	45	106	218	278	2
110°-120°	4.7	0.1	0.0	95°	0	15	67	129	166	0
120°-130°	1.0	0.0	0.0	105°	0	2	16	47	67	0
130°-140°	0.2	0.0	0.0	115°	0	0	5	6	11	0
140°-150°	0.0	0.0	0.0	125°	0	0	0	1	6	0
150°-160°	0.0	0.0	0.0	135°	0	0	0	0	1	0
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°	1211.6	24.8	12.8	165°	0	0	0	0	0	0
0°-40°	1973.9	40.4	20.9	175°	0	0	0	0	0	0
0°-60°	3489.2	71.4	36.9	180°	0	0	0	0	0	0
0°-90°	4770.0	97.6	50.5							
90°-120°	118.6	2.4	1.3							
90°-150°	119.8	2.4	1.3							
90°-180°	120.0	2.5	1.3							
0°-180°	4889.8	100.0	51.7							



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1640	1640	1640	1640	1640
5°	1612	1610	1609	1595	1590
10°	1603	1580	1577	1573	1554
15°	1578	1558	1525	1511	1503
20°	1491	1460	1431	1427	1406
25°	1402	1386	1365	1363	1368
30°	1251	1241	1258	1278	1306
35°	1145	1162	1227	1296	1350
40°	966	1016	1118	1257	1310
45°	783	839	1006	1193	1257
50°	613	693	901	1118	1179
55°	466	569	828	1066	1149
60°	354	462	732	990	1079
65°	273	372	636	915	1030
70°	181	262	507	769	895
75°	135	189	399	635	739
80°	65	120	263	465	545
85°	18	78	170	334	406
90°	0	45	106	218	278
95°	0	15	67	129	166
100°	0	3	37	82	107
105°	0	2	16	47	67
110°	0	0	5	17	26
115°	0	0	5	6	11
120°	0	0	0	4	7
125°	0	0	0	1	6
130°	0	0	0	0	5
135°	0	0	0	0	1
140°	0	0	0	0	0
145°	0	0	0	0	0
150°	0	0	0	0	0
155°	0	0	0	0	0
160°	0	0	0	0	0
165°	0	0	0	0	0
170°	0	0	0	0	0
175°	0	0	0	0	0
180°	0	0	0	0	0

(END OF REPORT)