

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: 8709.0

Luminaire Tested: **FSW X 2/26 120 89 HPF SF1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: 8709.0
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FSW X 2/26 120 89 HPF SF1
Description: FAIL-SAFE 26"WALL MNT DIRECT SECURITY LUMINAIRE
WHITE REFLECTOR w/.125 K19 ACRYLIC LENS
Light Source: 2/26W QUAD PL 1800 LUMENS
WATTS=57
CFQ26W/G24q/35
Ballast/Driver: 2 ADVANCE #H1Q26-TP-BLS

Summary

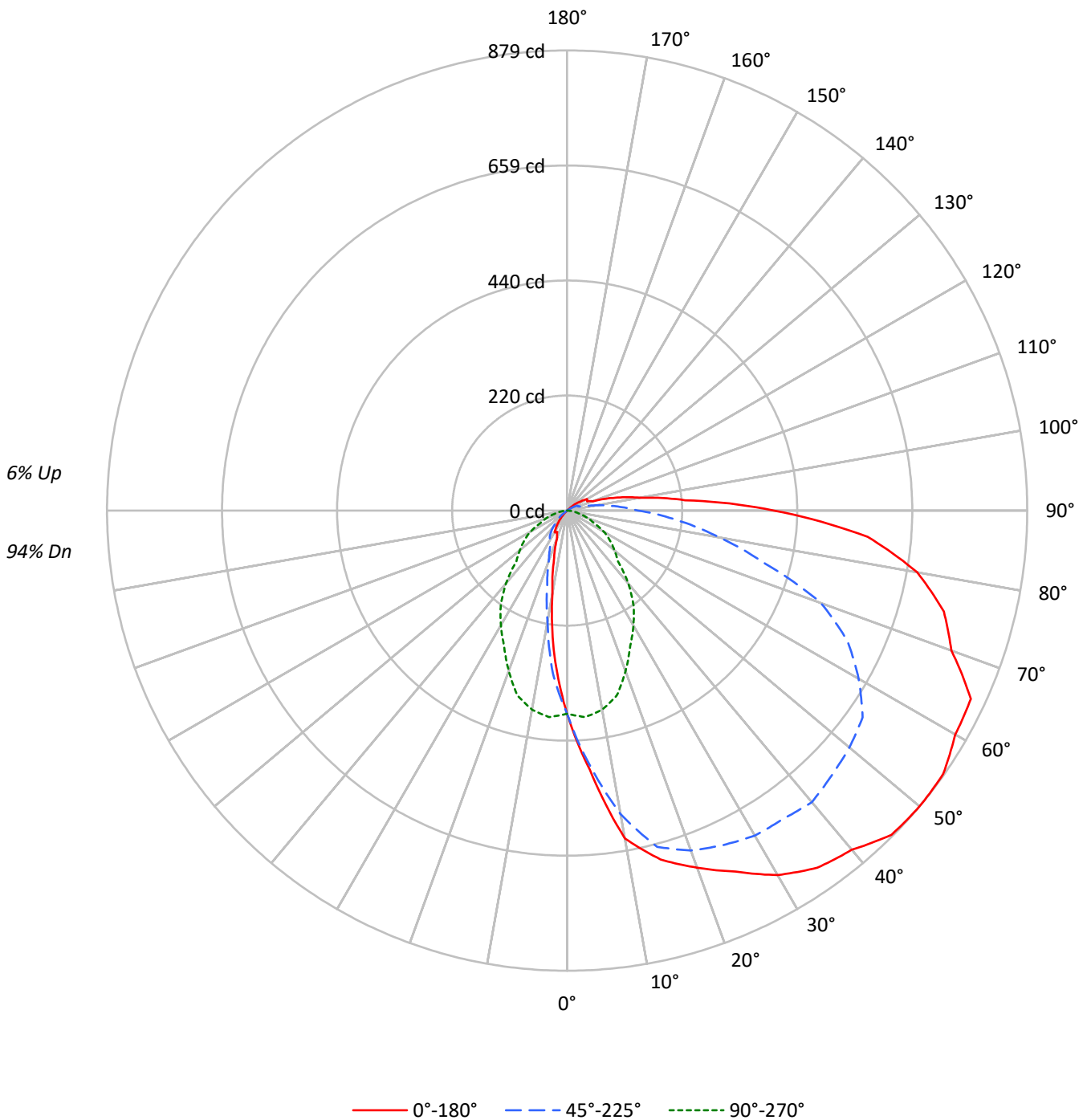
Lumens per Lamp: 1800 (2 lamps)
Luminaire Lumens: 1761.2 lumens
Efficiency: 48.9%
Efficacy: 30.9 lumens/watt
Spacing Criteria (0/90/45): 1.68 / 1.01 / 1.68
Luminous Opening: Rectangular w/ Sides (W: 1.96' x L: 0.3' x H: 0.3')
CIE Type: Direct

Input Watts (W): 57
Input Voltage (V): NR
Input Current (A_{in}): 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										
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	50	30	10	0														
RCR																																						
0	58	58	58	58	56	56	56	56	53	53	53	50	50	50	47	47	47	46						46														
1	51	48	45	43	49	46	44	42	44	42	40	41	39	38	39	38	36	35						35														
2	45	41	37	33	44	39	36	33	37	34	31	35	32	30	33	31	29	28						28														
3	41	35	30	27	39	34	30	26	32	28	25	30	27	25	29	26	24	22						22														
4	37	31	26	22	36	30	25	22	28	24	21	27	23	20	25	22	20	19						19														
5	34	27	22	19	33	26	22	18	25	21	18	24	20	17	22	19	17	16						16														
6	31	24	19	16	30	24	19	16	22	18	15	21	18	15	20	17	15	14						14														
7	29	22	17	14	28	21	17	14	20	16	13	19	16	13	18	15	13	12						12														
8	27	20	15	12	26	19	15	12	18	15	12	18	14	12	17	14	11	10						10														
9	25	18	14	11	24	18	14	11	17	13	11	16	13	10	15	12	10	9						9														
10	23	17	13	10	23	16	12	10	16	12	10	15	12	9	14	11	9	8						8														

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	7230	7230	7230
5°	8549	7311	4782
10°	10231	7115	2606
15°	10499	6787	1476
20°	10556	6129	829
25°	10671	5475	631
30°	10968	5008	655
35°	11146	4548	442
40°	11190	3931	251
45°	11543	3138	0
50°	11627	2900	0
55°	11735	2674	0
60°	11678	2424	0
65°	11933	1866	0
70°	11355	1618	0
75°	11336	1198	0
80°	10923	868	0
85°	9908	393	0



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	45°	90°	135°	180°	Flux
0°-10°	37.8	2.1	1.0	0°	388	388	388	388	388	
10°-20°	110.7	6.3	3.1	5°	497	487	396	312	278	51
20°-30°	173.8	9.9	4.8	15°	690	665	366	147	97	195
30°-40°	226.3	12.8	6.3	25°	761	705	285	77	45	354
40°-50°	255.4	14.5	7.1	35°	833	719	221	57	33	521
50°-60°	266.6	15.1	7.4	45°	876	715	137	24	0	673
60°-70°	247.8	14.1	6.9	55°	877	689	100	0	0	782
70°-80°	201.7	11.5	5.6	65°	851	591	56	0	0	828
80°-90°	132.2	7.5	3.7	75°	745	392	26	0	0	780
90°-100°	64.5	3.7	1.8	85°	576	211	5	0	0	486
100°-110°	26.8	1.5	0.7	90°	395	135	0	0	0	218
110°-120°	12.2	0.7	0.3	95°	226	93	0	0	0	184
120°-130°	5.0	0.3	0.1	105°	95	30	0	0	0	102
130°-140°	0.5	0.0	0.0	115°	42	22	0	0	0	45
140°-150°	0.0	0.0	0.0	125°	29	0	0	0	0	27
150°-160°	0.0	0.0	0.0	135°	0	0	0	0	0	3
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°	322.3	18.3	9.0	165°	0	0	0	0	0	0
0°-40°	548.6	31.1	15.2	175°	0	0	0	0	0	0
0°-60°	1070.6	60.8	29.7	180°	0	0	0	0	0	0
0°-90°	1652.3	93.8	45.9							
90°-120°	103.4	5.9	2.9							
90°-150°	108.9	6.2	3.0							
90°-180°	109.0	6.2	3.0							
0°-180°	1761.2	100.0	48.9							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	388	388	388	388	388	388	388	388	388
5°	497	489	487	457	396	358	312	278	278
10°	636	629	589	508	386	292	215	169	162
15°	690	684	665	540	366	237	147	113	97
20°	726	717	691	560	326	190	102	67	57
25°	761	762	705	556	285	163	77	48	45
30°	804	786	717	550	253	145	66	39	48
35°	833	800	719	515	221	112	57	30	33
40°	846	816	727	485	182	74	42	24	19
45°	876	824	715	440	137	42	24	5	0
50°	879	839	704	390	118	27	16	0	0
55°	877	824	689	313	100	19	0	0	0
60°	856	815	643	231	82	18	0	0	0
65°	851	782	591	144	56	6	0	0	0
70°	781	733	516	89	42	0	0	0	0
75°	745	690	392	55	26	0	0	0	0
80°	679	576	295	41	15	0	0	0	0
85°	576	432	211	35	5	0	0	0	0
90°	395	302	135	37	0	0	0	0	0
95°	226	213	93	42	0	0	0	0	0
100°	141	147	58	20	0	0	0	0	0
105°	95	106	30	10	0	0	0	0	0
110°	52	77	23	0	0	0	0	0	0
115°	42	52	22	0	0	0	0	0	0
120°	44	40	13	0	0	0	0	0	0
125°	29	26	0	0	0	0	0	0	0
130°	17	11	0	0	0	0	0	0	0
135°	0	0	0	0	0	0	0	0	0
140°	0	0	0	0	0	0	0	0	0
145°	0	0	0	0	0	0	0	0	0
150°	0	0	0	0	0	0	0	0	0
155°	0	0	0	0	0	0	0	0	0
160°	0	0	0	0	0	0	0	0	0
165°	0	0	0	0	0	0	0	0	0
170°	0	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0	0

(END OF REPORT)