

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: P311927

Luminaire Tested: **14FCZ2-35-UNV-L83050-HRP-CP125-W2A-U-4000K**

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 Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P311927
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-35-UNV-L83050-HRP-CP125-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" POLYCARB SHEET
Light Source: (168) 4000K TUNABLE CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment:

<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
AS-5443-1	Good	WHITE TWIN R-EVOLVE FLOOD
AS-5443-2	Good	REFLECTOR
AS-5443-3	Good	DRIVER
AS-5443-4	Good	UPPER MODULE
AS-5443-5	Good	LENS
AS-5443-6	Good	DRIVER 2
AS-5443-7	Good	TRIM RING

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2622.0 lumens
Efficiency: N/A
Efficacy: 86.8 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

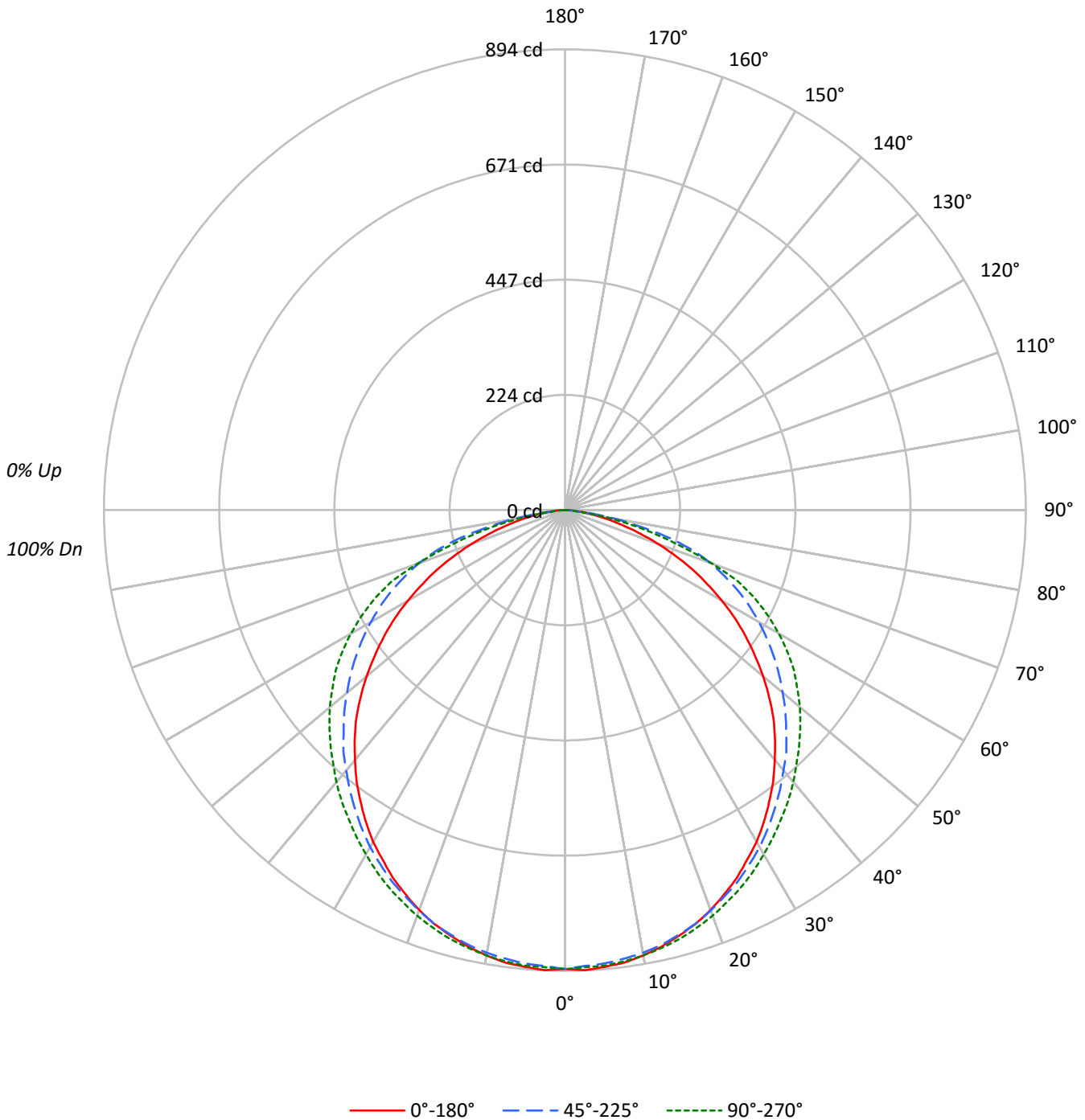
Input Watts (W): 30.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	83	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2396	2396	2396
5°	2403	2385	2396
10°	2397	2384	2397
15°	2382	2377	2400
20°	2366	2368	2399
25°	2340	2360	2399
30°	2311	2347	2398
35°	2270	2329	2402
40°	2224	2317	2421
45°	2178	2309	2447
50°	2102	2309	2492
55°	2011	2321	2545
60°	1890	2338	2578
65°	1743	2362	2593
70°	1518	2367	2387
75°	1252	2203	1929
80°	984	1584	1291
85°	763	611	306



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.3	3.2
10°-20°	241.9	9.2
20°-30°	367.3	14.0
30°-40°	445.1	17.0
40°-50°	469.0	17.9
50°-60°	437.9	16.7
60°-70°	349.9	13.3
70°-80°	192.5	7.3
80°-90°	34.0	1.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	693.5	26.5
0°-40°	1138.6	43.4
0°-60°	2045.5	78.0
0°-90°	2622.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2622.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	890	890	890	890	890	
5°	890	887	883	889	887	85
15°	855	855	853	862	862	241
25°	788	790	795	806	808	363
35°	691	698	709	727	731	432
45°	572	583	607	634	643	440
55°	429	450	495	529	542	383
65°	274	308	371	402	407	269
75°	120	172	212	190	186	130
85°	25	31	20	12	10	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	890.4	890.4	890.4	890.4	890.4
2.5°	893.7	891.3	885.5	890.4	888.0
5°	889.6	887.1	883.0	888.8	887.1
7.5°	885.5	882.2	878.1	884.7	883.0
10°	877.3	874.8	872.3	878.1	877.3
12.5°	867.4	866.5	864.1	870.7	869.8
15°	855.0	855.0	853.3	861.6	861.6
17.5°	841.8	841.0	841.8	850.9	850.0
20°	826.1	826.1	827.0	837.7	837.7
22.5°	807.2	808.0	810.5	823.7	822.8
25°	788.2	789.9	794.8	806.3	808.0
27.5°	765.1	769.2	775.0	789.0	790.7
30°	743.7	746.2	755.2	768.4	771.7
32.5°	718.1	723.1	733.0	747.8	751.9
35°	690.9	697.5	709.1	727.2	731.3
37.5°	663.7	669.5	685.1	704.1	711.5
40°	633.2	643.1	659.6	681.0	689.3
42.5°	603.5	613.4	635.7	657.9	665.4
45°	572.2	582.9	606.8	634.0	643.1
47.5°	537.6	549.9	580.4	609.3	619.2
50°	502.1	517.8	551.6	583.7	595.3
52.5°	465.0	484.8	523.5	557.4	568.1
55°	428.7	450.2	494.7	529.3	542.5
57.5°	391.6	414.7	465.0	504.6	512.0
60°	351.2	379.3	434.5	469.1	479.0
62.5°	311.7	343.8	403.2	436.2	444.4
65°	273.7	308.4	371.0	401.5	407.3
67.5°	232.5	273.7	335.6	363.6	365.2
70°	192.9	240.7	300.9	314.1	303.4
72.5°	154.2	205.3	260.5	249.8	240.7
75°	120.4	172.3	211.9	190.5	185.5
77.5°	89.0	141.0	151.7	140.2	131.1
80°	63.5	111.3	102.2	87.4	83.3
82.5°	43.7	70.1	56.1	43.7	37.9
85°	24.7	31.3	19.8	12.4	9.9
87.5°	10.7	7.4	4.1	3.3	3.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)