

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: P311951

Luminaire Tested: **14FCZ2-39-UNV-L83050-HRP-CP125-W2A-U-3500K**

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: P311951
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: 14FCZ2-39-UNV-L83050-HRP-CP125-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" POLYCARB SHEET
Light Source: (168) 3500K 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: 2755.0 lumens
Efficiency: N/A
Efficacy: 82.7 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

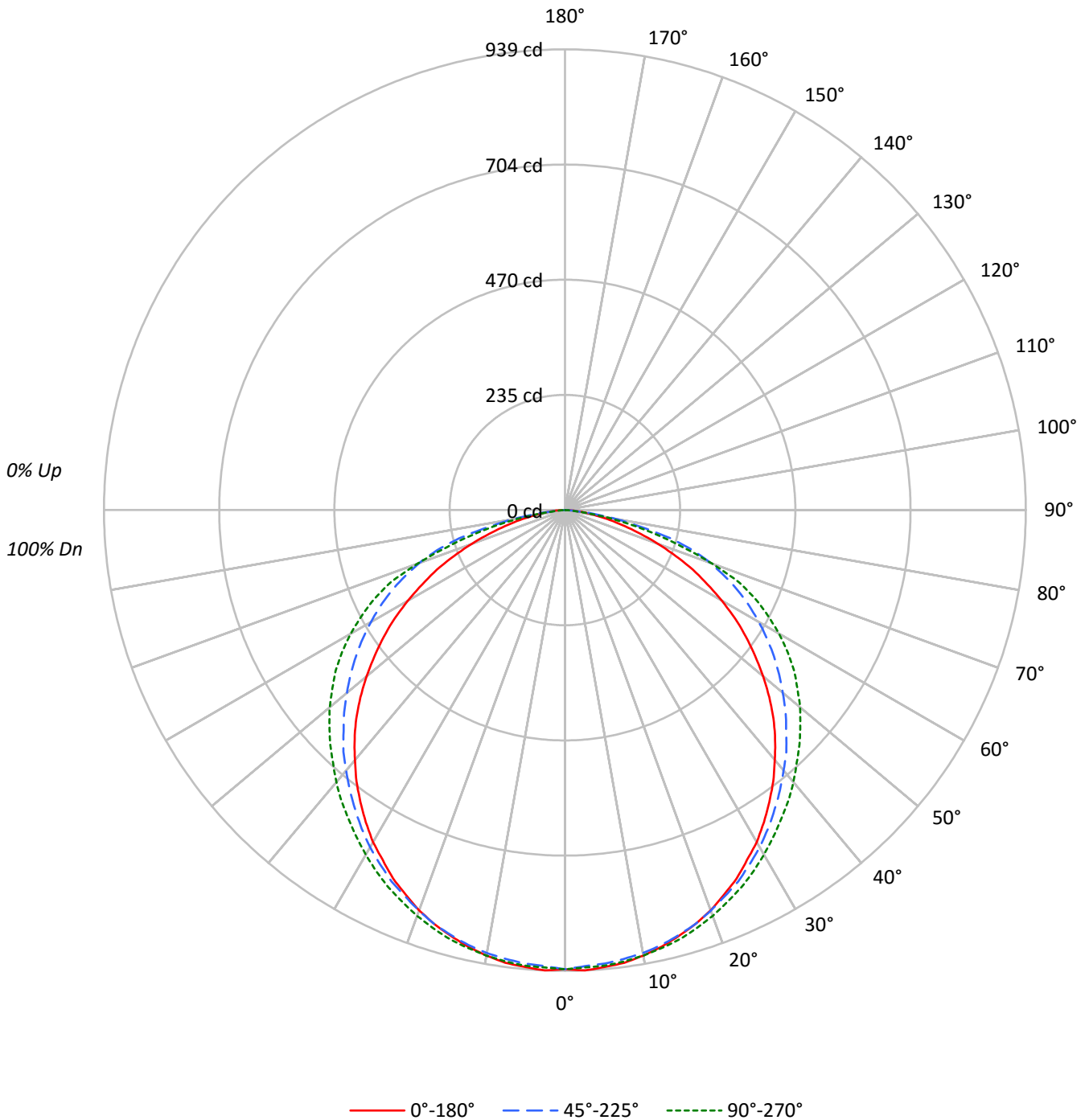
Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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°	2518	2518	2518
5°	2525	2506	2518
10°	2519	2505	2519
15°	2503	2498	2522
20°	2486	2488	2521
25°	2459	2480	2521
30°	2428	2466	2520
35°	2385	2447	2524
40°	2337	2434	2544
45°	2288	2426	2571
50°	2209	2426	2619
55°	2114	2439	2674
60°	1986	2457	2709
65°	1831	2482	2725
70°	1595	2488	2508
75°	1315	2314	2026
80°	1034	1664	1356
85°	803	642	321



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.6	3.2
10°-20°	254.2	9.2
20°-30°	386.0	14.0
30°-40°	467.7	17.0
40°-50°	492.8	17.9
50°-60°	460.1	16.7
60°-70°	367.7	13.3
70°-80°	202.3	7.3
80°-90°	35.7	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°	728.7	26.5
0°-40°	1196.4	43.4
0°-60°	2149.3	78.0
0°-90°	2755.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2755.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	936	936	936	936	936	
5°	935	932	928	934	932	89
15°	898	898	897	905	905	254
25°	828	830	835	847	849	381
35°	726	733	745	764	768	454
45°	601	612	638	666	676	463
55°	450	473	520	556	570	402
65°	288	324	390	422	428	283
75°	126	181	223	200	195	136
85°	26	33	21	13	10	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	935.6	935.6	935.6	935.6	935.6
2.5°	939.1	936.5	930.4	935.6	933.0
5°	934.7	932.1	927.8	933.9	932.1
7.5°	930.4	926.9	922.6	929.5	927.8
10°	921.8	919.2	916.6	922.6	921.8
12.5°	911.4	910.5	907.9	914.8	914.0
15°	898.4	898.4	896.6	905.3	905.3
17.5°	884.5	883.6	884.5	894.0	893.2
20°	868.0	868.0	868.9	880.2	880.2
22.5°	848.1	849.0	851.6	865.4	864.6
25°	828.2	829.9	835.1	847.2	849.0
27.5°	803.9	808.3	814.3	829.1	830.8
30°	781.4	784.0	793.5	807.4	810.9
32.5°	754.6	759.8	770.1	785.7	790.1
35°	726.0	732.9	745.0	764.1	768.4
37.5°	697.4	703.4	719.9	739.8	747.6
40°	665.3	675.7	693.0	715.6	724.2
42.5°	634.1	644.5	667.9	691.3	699.1
45°	601.2	612.5	637.6	666.2	675.7
47.5°	564.8	577.8	609.9	640.2	650.6
50°	527.6	544.0	579.6	613.3	625.5
52.5°	488.6	509.4	550.1	585.6	596.9
55°	450.5	473.0	519.8	556.2	570.0
57.5°	411.5	435.8	488.6	530.2	538.0
60°	369.0	398.5	456.5	492.9	503.3
62.5°	327.5	361.3	423.6	458.3	466.9
65°	287.6	324.0	389.8	421.9	428.0
67.5°	244.3	287.6	352.6	382.0	383.8
70°	202.7	253.0	316.2	330.1	318.8
72.5°	162.0	215.7	273.8	262.5	253.0
75°	126.5	181.1	222.6	200.1	194.9
77.5°	93.6	148.1	159.4	147.3	137.7
80°	66.7	117.0	107.4	91.8	87.5
82.5°	45.9	73.6	58.9	45.9	39.9
85°	26.0	32.9	20.8	13.0	10.4
87.5°	11.3	7.8	4.3	3.5	3.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)