

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: P307199

Luminaire Tested: **14FCZ2-39-UNV-L82765-HRP-CP250-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: P307199
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-L82765-HRP-CP250-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.250"
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: 2612.0 lumens
Efficiency: N/A
Efficacy: 77.5 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

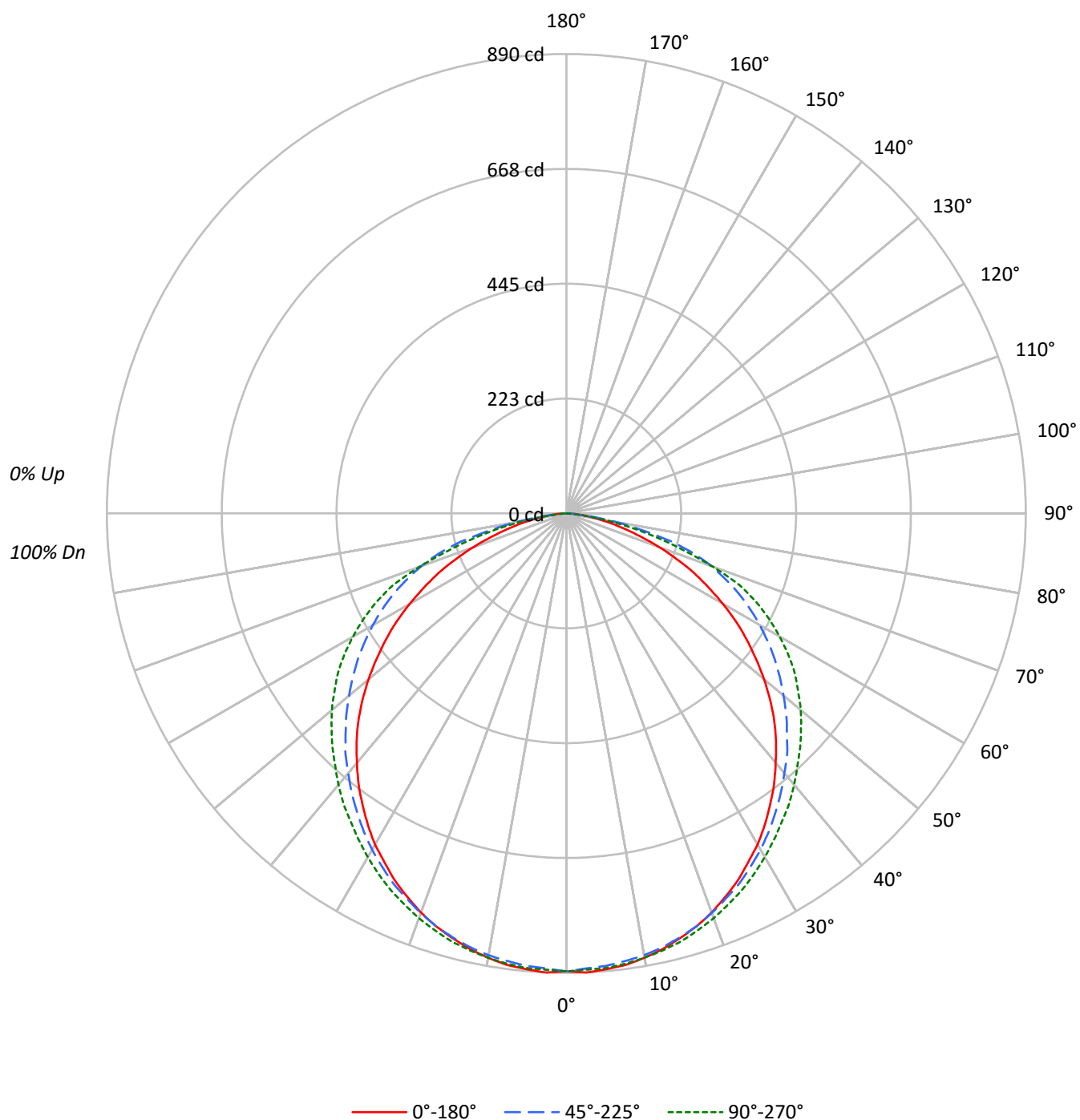
Input Watts (W): 33.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2387	2387	2387
5°	2394	2376	2387
10°	2388	2375	2388
15°	2373	2368	2391
20°	2357	2359	2390
25°	2331	2351	2390
30°	2302	2338	2389
35°	2261	2321	2393
40°	2216	2308	2412
45°	2169	2300	2438
50°	2094	2300	2483
55°	2004	2312	2535
60°	1883	2329	2568
65°	1736	2353	2583
70°	1512	2359	2378
75°	1247	2195	1921
80°	979	1578	1286
85°	760	608	306



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.0	3.2
10°-20°	241.0	9.2
20°-30°	365.9	14.0
30°-40°	443.4	17.0
40°-50°	467.2	17.9
50°-60°	436.2	16.7
60°-70°	348.6	13.3
70°-80°	191.8	7.3
80°-90°	33.9	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°	690.9	26.5
0°-40°	1134.3	43.4
0°-60°	2037.7	78.0
0°-90°	2612.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2612.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	887	887	887	887	887	
5°	886	884	880	885	884	84
15°	852	852	850	858	858	240
25°	785	787	792	803	805	361
35°	688	695	706	724	728	431
45°	570	581	604	632	641	439
55°	427	448	493	527	540	381
65°	273	307	370	400	406	268
75°	120	172	211	190	185	129
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°	887.0	887.0	887.0	887.0	887.0
2.5°	890.3	887.9	882.1	887.0	884.6
5°	886.2	883.8	879.7	885.4	883.8
7.5°	882.1	878.8	874.7	881.3	879.7
10°	873.9	871.4	869.0	874.7	873.9
12.5°	864.1	863.2	860.8	867.3	866.5
15°	851.7	851.7	850.1	858.3	858.3
17.5°	838.6	837.8	838.6	847.6	846.8
20°	823.0	823.0	823.8	834.5	834.5
22.5°	804.1	804.9	807.4	820.5	819.7
25°	785.2	786.8	791.8	803.3	804.9
27.5°	762.2	766.3	772.1	786.0	787.7
30°	740.8	743.3	752.3	765.5	768.8
32.5°	715.4	720.3	730.2	745.0	749.1
35°	688.3	694.9	706.4	724.4	728.5
37.5°	661.2	666.9	682.5	701.4	708.8
40°	630.8	640.6	657.1	678.4	686.6
42.5°	601.2	611.1	633.3	655.4	662.8
45°	570.0	580.7	604.5	631.6	640.6
47.5°	535.5	547.8	578.2	607.0	616.8
50°	500.2	515.8	549.5	581.5	593.0
52.5°	463.2	482.9	521.6	555.2	565.9
55°	427.1	448.5	492.8	527.3	540.4
57.5°	390.1	413.1	463.2	502.7	510.1
60°	349.9	377.8	432.8	467.3	477.2
62.5°	310.5	342.5	401.6	434.5	442.7
65°	272.7	307.2	369.6	400.0	405.7
67.5°	231.6	272.7	334.3	362.2	363.9
70°	192.2	239.8	299.8	312.9	302.3
72.5°	153.6	204.5	259.5	248.9	239.8
75°	119.9	171.7	211.1	189.7	184.8
77.5°	88.7	140.4	151.1	139.6	130.6
80°	63.2	110.9	101.8	87.1	83.0
82.5°	43.5	69.8	55.9	43.5	37.8
85°	24.6	31.2	19.7	12.3	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)