

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: P307238

Luminaire Tested: **14FCZ2-44-UNV-L82765-HRP-CP187-W2A-U-5500K**

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: P307238
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: 14FCZ2-44-UNV-L82765-HRP-CP187-W2A-U-5500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.187"
POLYCARB SHEET
Light Source: (168) 5500K 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: 3068.0 lumens
Efficiency: N/A
Efficacy: 77.9 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

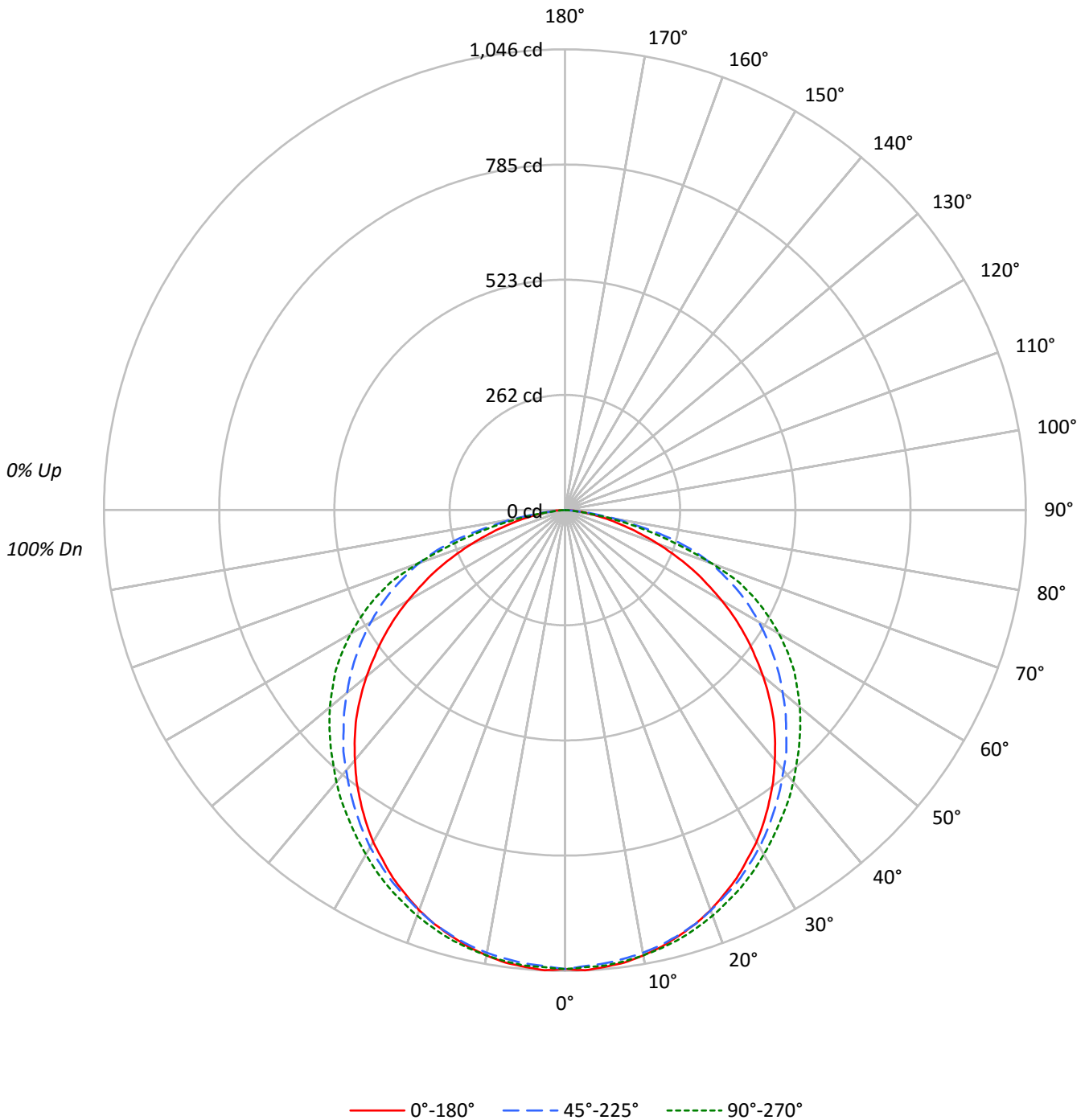
Input Watts (W): 39.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2804	2804	2804
5°	2812	2791	2804
10°	2805	2789	2805
15°	2787	2782	2808
20°	2768	2771	2807
25°	2738	2761	2807
30°	2704	2746	2806
35°	2656	2726	2811
40°	2603	2711	2833
45°	2548	2702	2864
50°	2460	2702	2916
55°	2354	2715	2978
60°	2212	2736	3017
65°	2039	2764	3035
70°	1776	2770	2793
75°	1465	2577	2257
80°	1151	1853	1509
85°	892	716	358



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.6	3.2
10°-20°	283.0	9.2
20°-30°	429.8	14.0
30°-40°	520.8	17.0
40°-50°	548.8	17.9
50°-60°	512.4	16.7
60°-70°	409.4	13.3
70°-80°	225.3	7.3
80°-90°	39.8	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°	811.5	26.5
0°-40°	1332.3	43.4
0°-60°	2393.5	78.0
0°-90°	3068.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3068.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1042	1042	1042	1042	1042	
5°	1041	1038	1033	1040	1038	99
15°	1000	1000	998	1008	1008	282
25°	922	924	930	944	945	425
35°	808	816	830	851	856	506
45°	670	682	710	742	752	515
55°	502	527	579	619	635	448
65°	320	361	434	470	477	315
75°	141	202	248	223	217	152
85°	29	37	23	14	12	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1041.9	1041.9	1041.9	1041.9	1041.9
2.5°	1045.8	1042.9	1036.1	1041.9	1039.0
5°	1040.9	1038.0	1033.2	1040.0	1038.0
7.5°	1036.1	1032.3	1027.4	1035.2	1033.2
10°	1026.5	1023.6	1020.7	1027.4	1026.5
12.5°	1014.9	1013.9	1011.0	1018.8	1017.8
15°	1000.4	1000.4	998.5	1008.1	1008.1
17.5°	985.0	984.0	985.0	995.6	994.6
20°	966.7	966.7	967.6	980.2	980.2
22.5°	944.5	945.4	948.3	963.8	962.8
25°	922.3	924.2	930.0	943.5	945.4
27.5°	895.3	900.1	906.8	923.2	925.2
30°	870.2	873.1	883.7	899.1	903.0
32.5°	840.3	846.1	857.6	875.0	879.8
35°	808.4	816.2	829.7	850.9	855.7
37.5°	776.6	783.4	801.7	823.9	832.6
40°	740.9	752.5	771.8	796.9	806.5
42.5°	706.2	717.8	743.8	769.9	778.5
45°	669.5	682.1	710.0	741.9	752.5
47.5°	629.0	643.5	679.2	712.9	724.5
50°	587.5	605.9	645.4	683.0	696.5
52.5°	544.1	567.3	612.6	652.2	664.7
55°	501.7	526.7	578.8	619.4	634.8
57.5°	458.2	485.3	544.1	590.4	599.1
60°	411.0	443.8	508.4	548.9	560.5
62.5°	364.7	402.3	471.8	510.3	520.0
65°	320.3	360.8	434.1	469.8	476.6
67.5°	272.1	320.3	392.6	425.4	427.4
70°	225.7	281.7	352.1	367.6	355.0
72.5°	180.4	240.2	304.9	292.3	281.7
75°	140.9	201.6	247.9	222.9	217.1
77.5°	104.2	165.0	177.5	164.0	153.4
80°	74.3	130.2	119.6	102.3	97.4
82.5°	51.1	82.0	65.6	51.1	44.4
85°	28.9	36.7	23.2	14.5	11.6
87.5°	12.5	8.7	4.8	3.9	3.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)