

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: P307232

Luminaire Tested: **14FCZ2-44-UNV-L82765-HRP-CP187-W2A-U-2700K**

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: P307232
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-2700K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.187"
POLYCARB SHEET
Light Source: (168) 2700K 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: 2707.0 lumens
Efficiency: N/A
Efficacy: 70.7 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

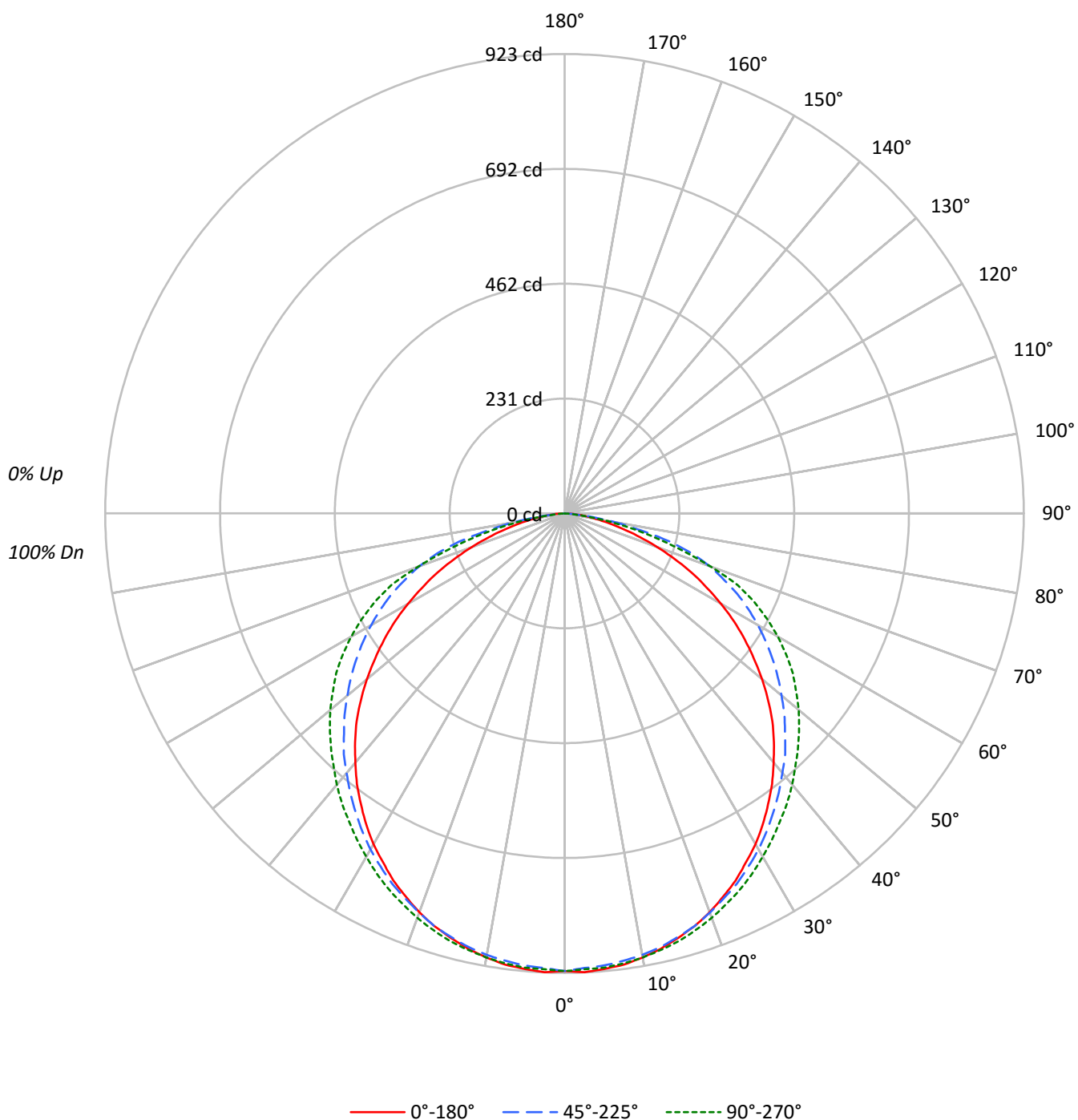
Input Watts (W): 38.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2474	2474	2474
5°	2481	2463	2474
10°	2475	2461	2475
15°	2459	2454	2478
20°	2442	2445	2477
25°	2416	2436	2477
30°	2386	2423	2476
35°	2343	2405	2480
40°	2296	2392	2500
45°	2248	2384	2527
50°	2170	2384	2573
55°	2076	2396	2628
60°	1951	2414	2662
65°	1799	2439	2677
70°	1567	2445	2464
75°	1292	2275	1991
80°	1015	1636	1333
85°	787	630	315



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.0	3.2
10°-20°	249.7	9.2
20°-30°	379.3	14.0
30°-40°	459.5	17.0
40°-50°	484.2	17.9
50°-60°	452.1	16.7
60°-70°	361.3	13.3
70°-80°	198.8	7.3
80°-90°	35.1	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°	716.0	26.5
0°-40°	1175.5	43.4
0°-60°	2111.8	78.0
0°-90°	2707.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2707.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	919	919	919	919	919	
5°	918	916	912	918	916	87
15°	883	883	881	890	890	249
25°	814	816	821	832	834	375
35°	713	720	732	751	755	446
45°	591	602	626	655	664	454
55°	443	465	511	546	560	395
65°	283	318	383	414	420	278
75°	124	178	219	197	192	134
85°	26	32	20	13	10	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	919.3	919.3	919.3	919.3	919.3
2.5°	922.7	920.2	914.2	919.3	916.8
5°	918.5	915.9	911.7	917.6	915.9
7.5°	914.2	910.8	906.5	913.4	911.7
10°	905.7	903.1	900.6	906.5	905.7
12.5°	895.5	894.6	892.1	898.9	898.0
15°	882.7	882.7	881.0	889.5	889.5
17.5°	869.1	868.2	869.1	878.5	877.6
20°	852.9	852.9	853.8	864.8	864.8
22.5°	833.3	834.2	836.7	850.4	849.5
25°	813.8	815.5	820.6	832.5	834.2
27.5°	789.9	794.2	800.1	814.6	816.3
30°	767.8	770.3	779.7	793.3	796.7
32.5°	741.4	746.5	756.7	772.1	776.3
35°	713.3	720.1	732.0	750.8	755.0
37.5°	685.2	691.2	707.4	726.9	734.6
40°	653.7	663.9	681.0	703.1	711.6
42.5°	623.1	633.3	656.3	679.3	686.9
45°	590.7	601.8	626.5	654.6	663.9
47.5°	555.0	567.8	599.3	629.0	639.3
50°	518.4	534.6	569.5	602.7	614.6
52.5°	480.1	500.5	540.5	575.4	586.5
55°	442.6	464.8	510.7	546.5	560.1
57.5°	404.3	428.2	480.1	520.9	528.6
60°	362.6	391.6	448.6	484.3	494.6
62.5°	321.8	355.0	416.2	450.3	458.8
65°	282.6	318.4	383.0	414.5	420.5
67.5°	240.0	282.6	346.4	375.4	377.1
70°	199.2	248.6	310.7	324.3	313.2
72.5°	159.2	212.0	269.0	257.9	248.6
75°	124.3	177.9	218.8	196.6	191.5
77.5°	91.9	145.6	156.6	144.7	135.3
80°	65.5	114.9	105.6	90.2	86.0
82.5°	45.1	72.4	57.9	45.1	39.2
85°	25.5	32.3	20.4	12.8	10.2
87.5°	11.1	7.7	4.3	3.4	3.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)