

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: P307191

Luminaire Tested: **14FCZ2-39-UNV-L82765-HRP-CP187-W2A-U-4500K**

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: P307191
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-CP187-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.187"
POLYCARB SHEET
Light Source: (168) 4500K 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: 2681.0 lumens
Efficiency: N/A
Efficacy: 79.1 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

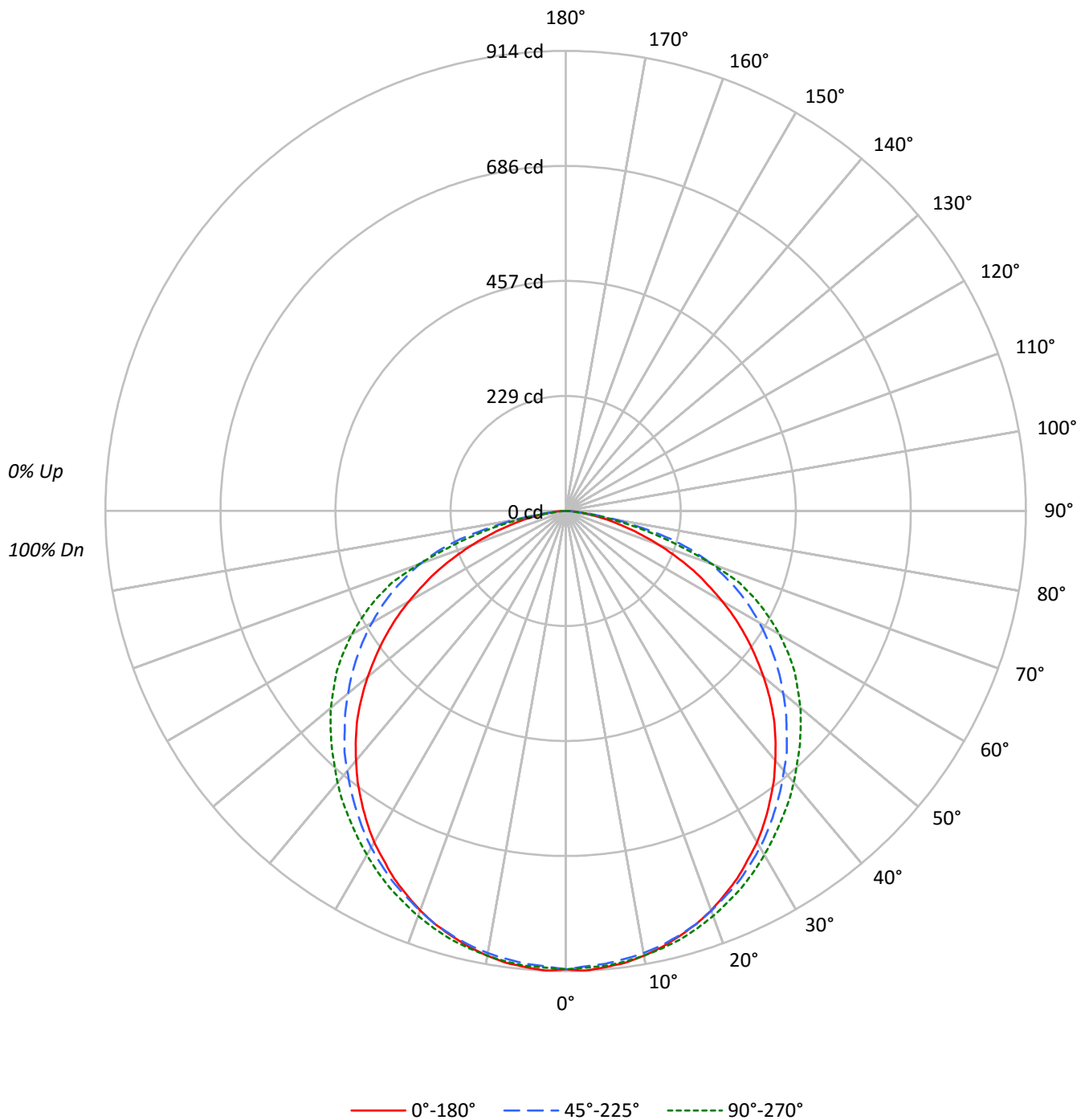
Input Watts (W): 33.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2450	2450	2450
5°	2457	2439	2450
10°	2451	2437	2451
15°	2435	2431	2454
20°	2419	2422	2453
25°	2393	2413	2453
30°	2363	2399	2452
35°	2321	2382	2457
40°	2275	2369	2476
45°	2227	2361	2503
50°	2149	2361	2548
55°	2057	2373	2602
60°	1933	2391	2636
65°	1782	2416	2652
70°	1552	2421	2441
75°	1280	2253	1972
80°	1006	1619	1319
85°	781	624	312



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.2	3.2
10°-20°	247.3	9.2
20°-30°	375.6	14.0
30°-40°	455.1	17.0
40°-50°	479.6	17.9
50°-60°	447.7	16.7
60°-70°	357.8	13.3
70°-80°	196.9	7.3
80°-90°	34.8	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°	709.1	26.5
0°-40°	1164.3	43.4
0°-60°	2091.6	78.0
0°-90°	2681.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2681.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	910	910	910	910	910	
5°	910	907	903	909	907	86
15°	874	874	872	881	881	247
25°	806	808	813	824	826	371
35°	706	713	725	744	748	442
45°	585	596	620	648	658	450
55°	438	460	506	541	555	391
65°	280	315	379	411	416	276
75°	123	176	217	195	190	132
85°	25	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°	910.5	910.5	910.5	910.5	910.5
2.5°	913.9	911.3	905.4	910.5	908.0
5°	909.6	907.1	902.9	908.8	907.1
7.5°	905.4	902.1	897.8	904.6	902.9
10°	897.0	894.5	891.9	897.8	897.0
12.5°	886.9	886.0	883.5	890.2	889.4
15°	874.2	874.2	872.5	881.0	881.0
17.5°	860.7	859.9	860.7	870.0	869.2
20°	844.7	844.7	845.6	856.5	856.5
22.5°	825.3	826.2	828.7	842.2	841.4
25°	805.9	807.6	812.7	824.5	826.2
27.5°	782.3	786.6	792.5	806.8	808.5
30°	760.4	762.9	772.2	785.7	789.1
32.5°	734.3	739.3	749.5	764.6	768.9
35°	706.5	713.2	725.0	743.6	747.8
37.5°	678.6	684.5	700.6	720.0	727.5
40°	647.5	657.6	674.4	696.3	704.8
42.5°	617.1	627.2	650.0	672.7	680.3
45°	585.1	596.0	620.5	648.3	657.6
47.5°	549.7	562.3	593.5	623.0	633.1
50°	513.4	529.4	564.0	596.9	608.7
52.5°	475.5	495.7	535.3	569.9	580.9
55°	438.4	460.3	505.8	541.2	554.7
57.5°	400.4	424.0	475.5	515.9	523.5
60°	359.1	387.8	444.3	479.7	489.8
62.5°	318.7	351.5	412.2	446.0	454.4
65°	279.9	315.3	379.4	410.6	416.5
67.5°	237.7	279.9	343.1	371.8	373.5
70°	197.3	246.2	307.7	321.2	310.2
72.5°	157.6	209.9	266.4	255.4	246.2
75°	123.1	176.2	216.7	194.7	189.7
77.5°	91.0	144.2	155.1	143.3	134.0
80°	64.9	113.8	104.5	89.4	85.1
82.5°	44.7	71.7	57.3	44.7	38.8
85°	25.3	32.0	20.2	12.6	10.1
87.5°	11.0	7.6	4.2	3.4	3.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)