

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: P307193

Luminaire Tested: **14FCZ2-39-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: P307193
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-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: 2744.0 lumens
Efficiency: N/A
Efficacy: 80.2 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

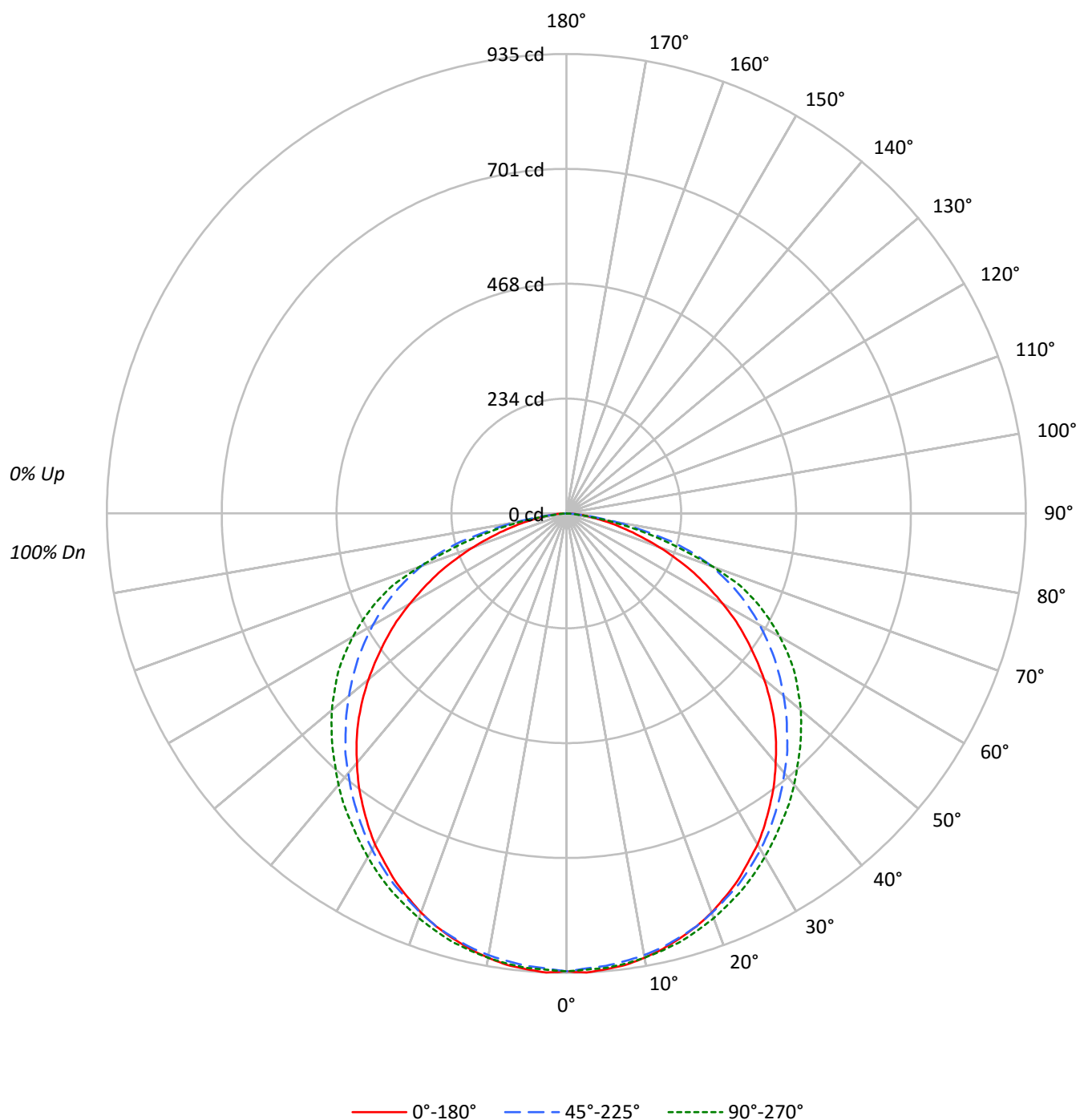
Input Watts (W): 34.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2508	2508	2508
5°	2515	2496	2508
10°	2509	2494	2509
15°	2493	2488	2512
20°	2476	2478	2511
25°	2449	2470	2511
30°	2418	2456	2509
35°	2375	2438	2514
40°	2328	2425	2534
45°	2279	2417	2561
50°	2200	2416	2608
55°	2105	2429	2664
60°	1978	2447	2698
65°	1824	2472	2714
70°	1589	2478	2498
75°	1310	2306	2018
80°	1029	1658	1350
85°	800	639	321



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.2	3.2
10°-20°	253.2	9.2
20°-30°	384.4	14.0
30°-40°	465.8	17.0
40°-50°	490.8	17.9
50°-60°	458.2	16.7
60°-70°	366.2	13.3
70°-80°	201.5	7.3
80°-90°	35.6	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°	725.8	26.5
0°-40°	1191.6	43.4
0°-60°	2140.7	78.0
0°-90°	2744.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2744.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	932	932	932	932	932	
5°	931	928	924	930	928	89
15°	895	895	893	902	902	253
25°	825	827	832	844	846	380
35°	723	730	742	761	765	452
45°	599	610	635	664	673	461
55°	449	471	518	554	568	401
65°	286	323	388	420	426	282
75°	126	180	222	199	194	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°	931.9	931.9	931.9	931.9	931.9
2.5°	935.3	932.7	926.7	931.9	929.3
5°	931.0	928.4	924.1	930.2	928.4
7.5°	926.7	923.2	918.9	925.8	924.1
10°	918.1	915.5	912.9	918.9	918.1
12.5°	907.7	906.9	904.3	911.2	910.3
15°	894.8	894.8	893.0	901.7	901.7
17.5°	881.0	880.1	881.0	890.5	889.6
20°	864.6	864.6	865.4	876.7	876.7
22.5°	844.7	845.6	848.2	862.0	861.1
25°	824.9	826.6	831.8	843.9	845.6
27.5°	800.7	805.0	811.1	825.7	827.5
30°	778.3	780.9	790.4	804.2	807.6
32.5°	751.5	756.7	767.1	782.6	786.9
35°	723.1	730.0	742.0	761.0	765.3
37.5°	694.6	700.6	717.0	736.9	744.6
40°	662.7	673.0	690.3	712.7	721.3
42.5°	631.6	642.0	665.3	688.6	696.3
45°	598.8	610.0	635.1	663.5	673.0
47.5°	562.6	575.5	607.4	637.6	648.0
50°	525.5	541.9	577.2	610.9	623.0
52.5°	486.6	507.4	547.9	583.3	594.5
55°	448.7	471.1	517.7	553.9	567.8
57.5°	409.9	434.0	486.6	528.1	535.8
60°	367.6	396.9	454.7	491.0	501.3
62.5°	326.2	359.8	421.9	456.4	465.1
65°	286.5	322.7	388.3	420.2	426.2
67.5°	243.3	286.5	351.2	380.5	382.2
70°	201.9	252.0	314.9	328.7	317.5
72.5°	161.4	214.8	272.7	261.4	252.0
75°	126.0	180.3	221.8	199.3	194.1
77.5°	93.2	147.5	158.8	146.7	137.2
80°	66.4	116.5	107.0	91.5	87.1
82.5°	45.7	73.3	58.7	45.7	39.7
85°	25.9	32.8	20.7	12.9	10.4
87.5°	11.2	7.8	4.3	3.5	3.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)