

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: P307239

Luminaire Tested: **14FCZ2-44-UNV-L82765-HRP-CP187-W2A-U-5700K**

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: P307239
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-5700K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.187"
POLYCARB SHEET
Light Source: (168) 5700K 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: 3076.0 lumens
Efficiency: N/A
Efficacy: 78.1 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

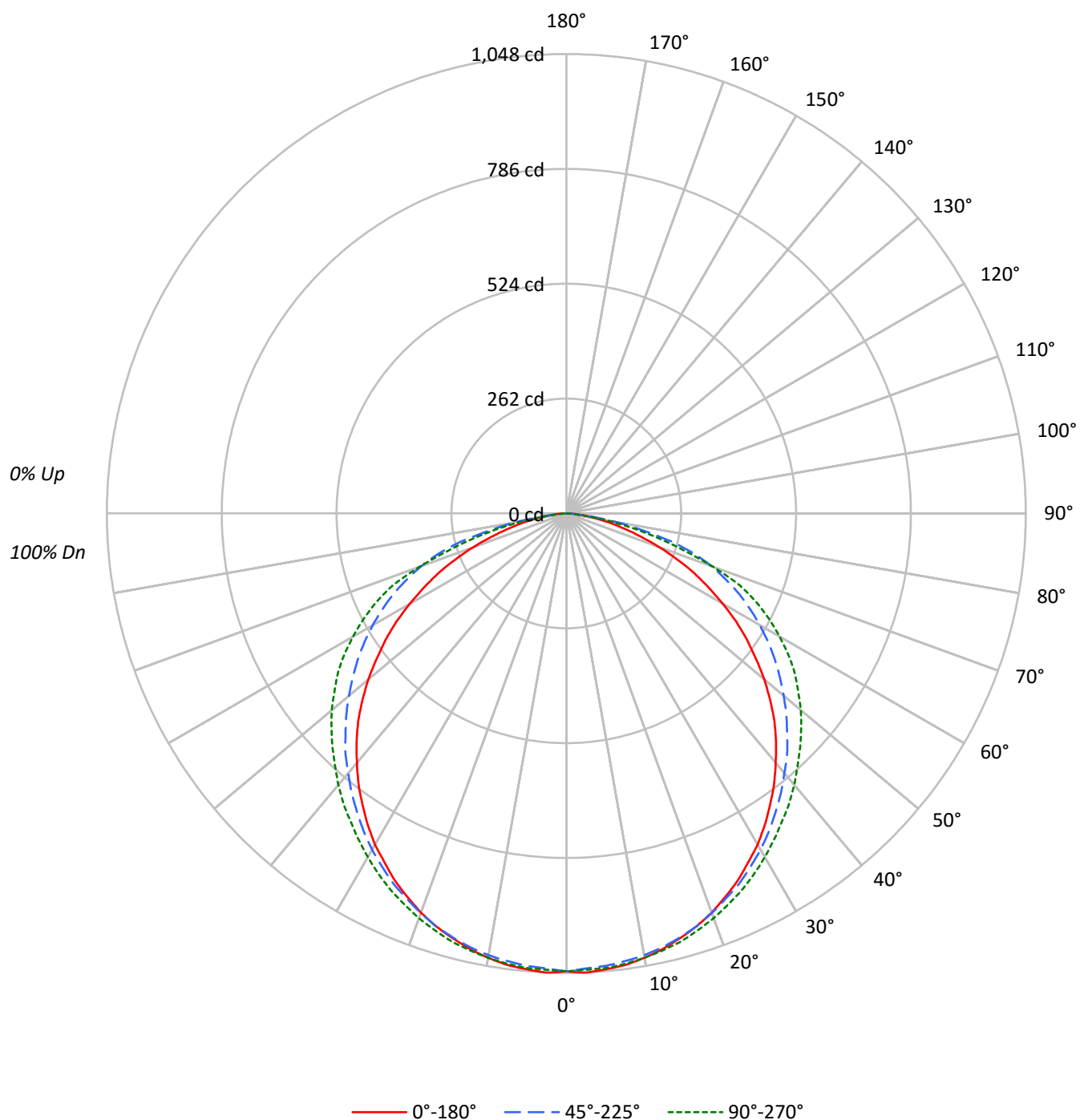
Input Watts (W): 39.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2811	2811	2811
5°	2819	2798	2811
10°	2812	2796	2812
15°	2794	2789	2816
20°	2775	2778	2814
25°	2746	2768	2814
30°	2711	2753	2813
35°	2663	2733	2818
40°	2609	2718	2840
45°	2555	2709	2871
50°	2466	2709	2924
55°	2360	2723	2986
60°	2217	2743	3025
65°	2045	2772	3042
70°	1781	2777	2800
75°	1468	2585	2262
80°	1155	1858	1514
85°	895	716	358



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.9	3.2
10°-20°	283.8	9.2
20°-30°	431.0	14.0
30°-40°	522.2	17.0
40°-50°	550.2	17.9
50°-60°	513.7	16.7
60°-70°	410.5	13.3
70°-80°	225.9	7.3
80°-90°	39.9	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°	813.6	26.5
0°-40°	1335.8	43.4
0°-60°	2399.7	78.0
0°-90°	3076.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3076.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1045	1045	1045	1045	1045	
5°	1044	1041	1036	1043	1041	99
15°	1003	1003	1001	1011	1011	283
25°	925	927	932	946	948	426
35°	811	818	832	853	858	507
45°	671	684	712	744	754	516
55°	503	528	580	621	636	449
65°	321	362	435	471	478	316
75°	141	202	249	223	218	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°	1044.6	1044.6	1044.6	1044.6	1044.6
2.5°	1048.5	1045.6	1038.8	1044.6	1041.7
5°	1043.7	1040.8	1035.9	1042.7	1040.8
7.5°	1038.8	1035.0	1030.1	1037.9	1035.9
10°	1029.1	1026.2	1023.3	1030.1	1029.1
12.5°	1017.5	1016.6	1013.7	1021.4	1020.4
15°	1003.0	1003.0	1001.1	1010.8	1010.8
17.5°	987.6	986.6	987.6	998.2	997.2
20°	969.2	969.2	970.1	982.7	982.7
22.5°	946.9	947.9	950.8	966.3	965.3
25°	924.7	926.6	932.4	946.0	947.9
27.5°	897.6	902.4	909.2	925.7	927.6
30°	872.5	875.4	886.0	901.5	905.3
32.5°	842.5	848.3	859.9	877.3	882.1
35°	810.6	818.3	831.8	853.1	857.9
37.5°	778.6	785.4	803.8	826.0	834.7
40°	742.8	754.5	773.8	798.9	808.6
42.5°	708.0	719.6	745.7	771.9	780.6
45°	671.3	683.8	711.9	743.8	754.5
47.5°	630.6	645.2	680.9	714.8	726.4
50°	589.1	607.4	647.1	684.8	698.4
52.5°	545.5	568.7	614.2	653.9	666.4
55°	503.0	528.1	580.3	621.0	636.4
57.5°	459.4	486.5	545.5	592.0	600.7
60°	412.0	444.9	509.7	550.4	562.0
62.5°	365.6	403.3	473.0	511.7	521.3
65°	321.1	361.7	435.3	471.0	477.8
67.5°	272.8	321.1	393.7	426.6	428.5
70°	226.3	282.4	353.0	368.5	355.9
72.5°	180.9	240.8	305.6	293.1	282.4
75°	141.2	202.2	248.6	223.4	217.6
77.5°	104.5	165.4	178.0	164.4	153.8
80°	74.5	130.6	119.9	102.5	97.7
82.5°	51.3	82.2	65.8	51.3	44.5
85°	29.0	36.8	23.2	14.5	11.6
87.5°	12.6	8.7	4.8	3.9	3.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)