

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: P307235

Luminaire Tested: **14FCZ2-44-UNV-L82765-HRP-CP187-W2A-U-4000K**

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: P307235
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-4000K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.187"
POLYCARB SHEET
Light Source: (168) 4000K 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: 2944.0 lumens
Efficiency: N/A
Efficacy: 76.1 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

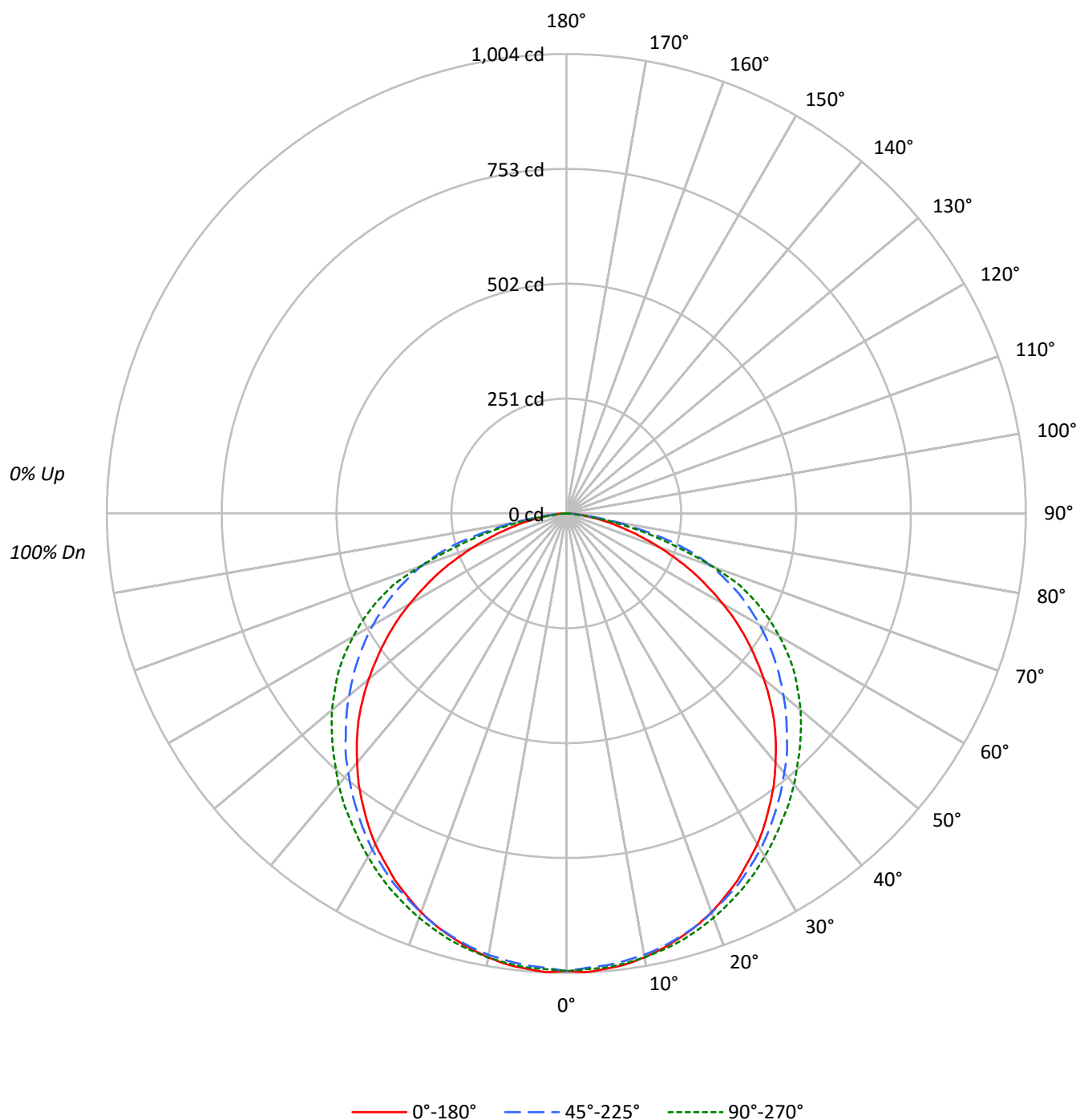
Input Watts (W): 38.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2690	2690	2690
5°	2698	2678	2691
10°	2692	2676	2692
15°	2674	2669	2695
20°	2656	2659	2694
25°	2628	2650	2694
30°	2595	2635	2692
35°	2549	2615	2697
40°	2498	2602	2719
45°	2445	2593	2748
50°	2360	2593	2798
55°	2259	2606	2858
60°	2123	2626	2895
65°	1957	2653	2912
70°	1704	2659	2681
75°	1406	2473	2166
80°	1105	1779	1449
85°	858	685	343



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.7	3.2
10°-20°	271.6	9.2
20°-30°	412.5	14.0
30°-40°	499.8	17.0
40°-50°	526.6	17.9
50°-60°	491.6	16.7
60°-70°	392.9	13.3
70°-80°	216.2	7.3
80°-90°	38.2	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°	778.7	26.5
0°-40°	1278.5	43.4
0°-60°	2296.7	78.0
0°-90°	2944.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2944.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1000	1000	1000	1000	1000	
5°	999	996	992	998	996	95
15°	960	960	958	967	967	271
25°	885	887	892	905	907	407
35°	776	783	796	816	821	485
45°	642	654	681	712	722	494
55°	481	506	555	594	609	430
65°	307	346	417	451	457	303
75°	135	194	238	214	208	145
85°	28	35	22	14	11	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	999.8	999.8	999.8	999.8	999.8
2.5°	1003.5	1000.7	994.2	999.8	997.0
5°	998.9	996.1	991.5	997.9	996.1
7.5°	994.2	990.5	985.9	993.3	991.5
10°	985.0	982.2	979.4	985.9	985.0
12.5°	973.9	973.0	970.2	977.6	976.7
15°	960.0	960.0	958.1	967.4	967.4
17.5°	945.2	944.3	945.2	955.4	954.4
20°	927.6	927.6	928.5	940.6	940.6
22.5°	906.3	907.2	910.0	924.8	923.9
25°	885.0	886.9	892.4	905.4	907.2
27.5°	859.1	863.7	870.2	885.9	887.8
30°	835.0	837.8	848.0	862.8	866.5
32.5°	806.3	811.9	823.0	839.6	844.3
35°	775.8	783.2	796.1	816.5	821.1
37.5°	745.2	751.7	769.3	790.6	798.9
40°	711.0	722.1	740.6	764.7	773.9
42.5°	677.6	688.7	713.7	738.7	747.1
45°	642.5	654.5	681.3	711.9	722.1
47.5°	603.6	617.5	651.7	684.1	695.2
50°	563.8	581.4	619.3	655.4	668.4
52.5°	522.1	544.3	587.8	625.8	637.8
55°	481.4	505.5	555.4	594.3	609.1
57.5°	439.7	465.6	522.1	566.6	574.9
60°	394.4	425.8	487.9	526.7	537.9
62.5°	349.9	386.0	452.7	489.7	499.0
65°	307.3	346.2	416.6	450.8	457.3
67.5°	261.1	307.3	376.8	408.3	410.1
70°	216.6	270.3	337.9	352.7	340.7
72.5°	173.1	230.5	292.5	280.5	270.3
75°	135.2	193.5	237.9	213.8	208.3
77.5°	100.0	158.3	170.3	157.4	147.2
80°	71.3	125.0	114.8	98.1	93.5
82.5°	49.1	78.7	63.0	49.1	42.6
85°	27.8	35.2	22.2	13.9	11.1
87.5°	12.0	8.3	4.6	3.7	3.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)