

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: P307237

Luminaire Tested: **14FCZ2-44-UNV-L82765-HRP-CP187-W2A-U-5000K**

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: P307237
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-5000K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.187"
POLYCARB SHEET
Light Source: (168) 5000K 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: 3037.0 lumens
Efficiency: N/A
Efficacy: 77.5 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

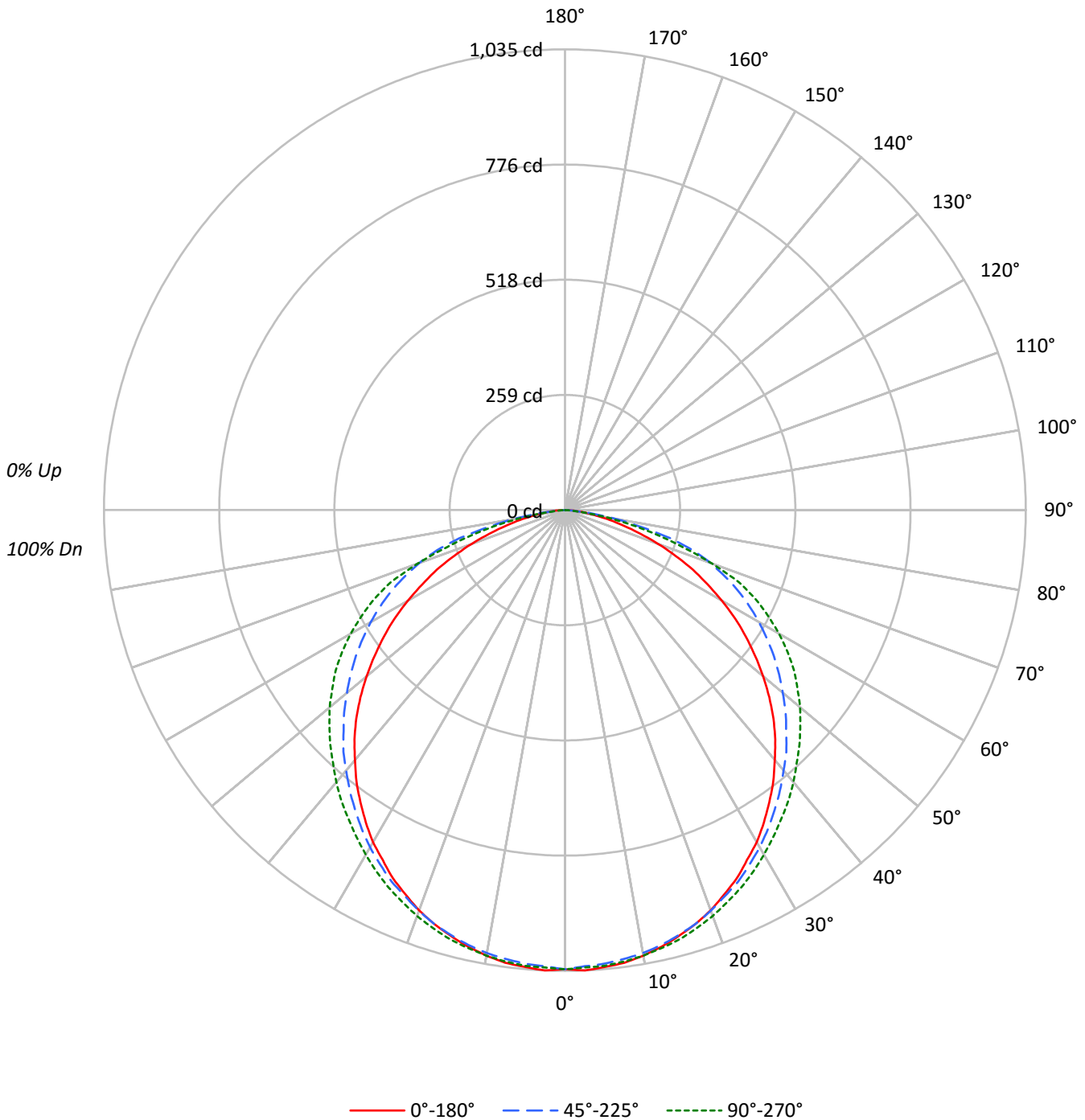
Input Watts (W): 39.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				10	0
RW	70	50	30	10	70	50	30	10	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	102	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	83	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2775	2775	2775
5°	2783	2763	2776
10°	2776	2761	2776
15°	2759	2754	2780
20°	2740	2743	2779
25°	2711	2733	2779
30°	2677	2718	2778
35°	2629	2698	2783
40°	2576	2684	2805
45°	2522	2675	2835
50°	2435	2675	2887
55°	2330	2688	2948
60°	2189	2709	2986
65°	2019	2736	3004
70°	1758	2743	2765
75°	1449	2551	2234
80°	1139	1835	1495
85°	883	707	355



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.6	3.2
10°-20°	280.2	9.2
20°-30°	425.5	14.0
30°-40°	515.5	17.0
40°-50°	543.3	17.9
50°-60°	507.2	16.7
60°-70°	405.3	13.3
70°-80°	223.0	7.3
80°-90°	39.4	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°	803.3	26.5
0°-40°	1318.9	43.4
0°-60°	2369.3	78.0
0°-90°	3037.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3037.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1031	1031	1031	1031	1031	
5°	1030	1028	1023	1030	1028	98
15°	990	990	988	998	998	280
25°	913	915	921	934	936	420
35°	800	808	821	842	847	501
45°	663	675	703	734	745	510
55°	497	521	573	613	628	443
65°	317	357	430	465	472	312
75°	139	200	245	221	215	150
85°	29	36	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°	1031.4	1031.4	1031.4	1031.4	1031.4
2.5°	1035.2	1032.3	1025.7	1031.4	1028.5
5°	1030.4	1027.6	1022.8	1029.5	1027.6
7.5°	1025.7	1021.8	1017.1	1024.7	1022.8
10°	1016.1	1013.2	1010.4	1017.1	1016.1
12.5°	1004.6	1003.7	1000.8	1008.5	1007.5
15°	990.3	990.3	988.4	998.0	998.0
17.5°	975.0	974.1	975.0	985.5	984.6
20°	956.9	956.9	957.8	970.3	970.3
22.5°	934.9	935.9	938.7	954.0	953.1
25°	913.0	914.9	920.6	934.0	935.9
27.5°	886.2	891.0	897.7	913.9	915.8
30°	861.4	864.3	874.8	890.0	893.9
32.5°	831.8	837.5	849.0	866.2	870.9
35°	800.3	807.9	821.3	842.3	847.1
37.5°	768.8	775.4	793.6	815.6	824.1
40°	733.4	744.9	764.0	788.8	798.4
42.5°	699.0	710.5	736.3	762.1	770.7
45°	662.8	675.2	702.9	734.4	744.9
47.5°	622.6	637.0	672.3	705.7	717.2
50°	581.6	599.7	638.9	676.1	689.5
52.5°	538.6	561.5	606.4	645.6	658.0
55°	496.6	521.4	573.0	613.1	628.4
57.5°	453.6	480.4	538.6	584.4	593.0
60°	406.8	439.3	503.3	543.4	554.8
62.5°	361.0	398.2	467.0	505.2	514.7
65°	317.1	357.2	429.7	465.1	471.8
67.5°	269.3	317.1	388.7	421.1	423.1
70°	223.5	278.9	348.6	363.8	351.4
72.5°	178.6	237.8	301.8	289.4	278.9
75°	139.4	199.6	245.4	220.6	214.9
77.5°	103.1	163.3	175.7	162.3	151.8
80°	73.5	128.9	118.4	101.2	96.5
82.5°	50.6	81.2	64.9	50.6	43.9
85°	28.6	36.3	22.9	14.3	11.5
87.5°	12.4	8.6	4.8	3.8	3.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)