

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: P312255

Luminaire Tested: **14FCZ2-39-UNV-L83050-CP187-W2A-U-3000K**

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: P312255  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-49)  
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-L83050-CP187-W2A-U-3000K  
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.187" POLYCARB SHEET  
Light Source: (168) 3000K 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**

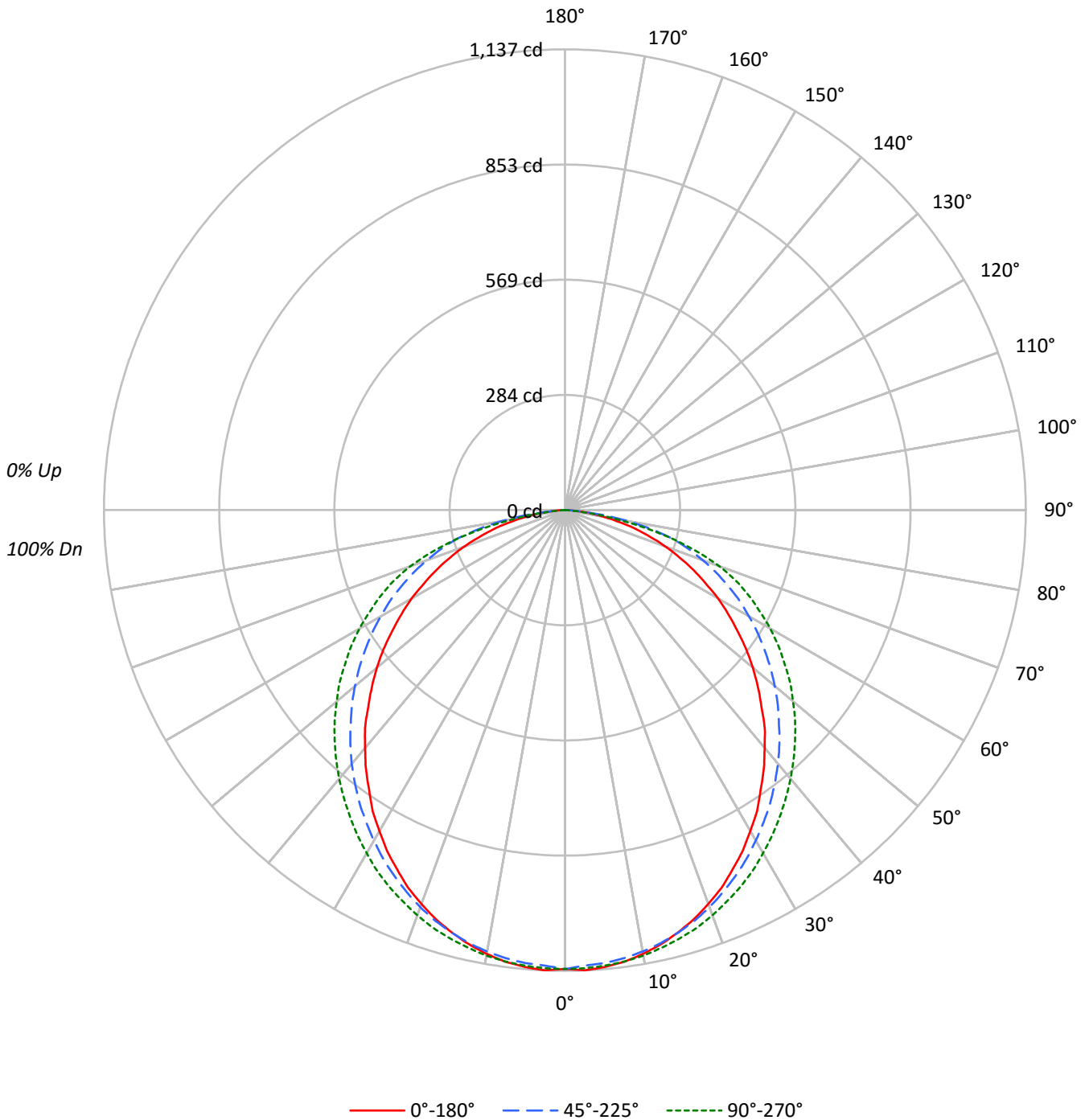
Lumens per Lamp: N/A  
Luminaire Lumens: 3287.0 lumens  
Efficiency: N/A  
Efficacy: 99.0 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 33.2  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	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	39	31	26	37	30	26	37	30	25	36	30	25	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3047	3047	3047
5°	3057	3031	3049
10°	3038	3022	3050
15°	3006	3008	3049
20°	2962	2987	3048
25°	2905	2958	3045
30°	2842	2926	3038
35°	2766	2901	3036
40°	2693	2873	3041
45°	2611	2842	3057
50°	2534	2829	3077
55°	2438	2820	3105
60°	2351	2824	3148
65°	2230	2833	3197
70°	2094	2854	3194
75°	1897	2880	2888
80°	1556	2487	2056
85°	1155	1176	475



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	107.2	3.3
10°-20°	306.1	9.3
20°-30°	461.1	14.0
30°-40°	553.3	16.8
40°-50°	576.7	17.5
50°-60°	533.9	16.2
60°-70°	431.4	13.1
70°-80°	263.0	8.0
80°-90°	54.3	1.7
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°	874.4	26.6
0°-40°	1427.7	43.4
0°-60°	2538.3	77.2
0°-90°	3287.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3287.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1132	1132	1132	1132	1132	
5°	1132	1129	1122	1130	1129	107
15°	1079	1080	1080	1094	1094	304
25°	978	984	996	1021	1025	451
35°	842	855	883	915	924	528
45°	686	706	747	789	803	530
55°	520	547	601	648	662	466
65°	350	385	445	490	502	346
75°	182	223	277	281	278	192
85°	37	56	38	21	15	46
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1132.4	1132.4	1132.4	1132.4	1132.4
2.5°	1136.8	1133.1	1125.1	1133.1	1131.6
5°	1131.6	1128.7	1122.1	1130.2	1128.7
7.5°	1124.3	1121.4	1115.5	1125.1	1123.6
10°	1111.9	1110.4	1106.0	1117.0	1116.3
12.5°	1097.2	1096.5	1094.3	1106.7	1106.0
15°	1078.9	1079.6	1079.6	1094.3	1094.3
17.5°	1058.4	1059.8	1062.8	1078.9	1081.1
20°	1034.2	1037.1	1043.0	1061.3	1064.2
22.5°	1009.2	1011.4	1020.2	1042.2	1045.2
25°	978.5	984.3	996.1	1021.0	1025.4
27.5°	949.1	954.3	970.4	996.1	1003.4
30°	914.7	922.8	941.8	969.7	977.7
32.5°	881.7	890.5	912.5	944.8	952.1
35°	842.1	855.3	883.2	915.4	924.2
37.5°	806.2	818.7	850.2	885.4	895.6
40°	766.6	782.0	818.0	855.3	865.6
42.5°	730.0	744.7	783.5	821.6	835.5
45°	686.0	706.5	746.9	788.6	803.3
47.5°	645.7	666.2	712.4	757.1	770.3
50°	605.4	627.4	675.8	721.9	735.1
52.5°	563.6	587.1	639.1	685.3	700.7
55°	519.6	546.8	601.0	647.9	661.8
57.5°	477.9	505.7	563.6	611.3	625.2
60°	436.8	465.4	524.8	570.2	584.9
62.5°	391.4	425.1	486.7	531.4	542.4
65°	350.3	384.8	444.9	489.6	502.1
67.5°	307.1	344.5	404.6	445.6	457.4
70°	266.1	304.9	362.8	400.9	406.0
72.5°	222.1	261.7	320.3	344.5	344.5
75°	182.5	222.8	277.0	281.4	277.8
77.5°	139.3	184.0	219.1	210.4	201.6
80°	100.4	144.4	160.5	144.4	132.7
82.5°	67.4	104.8	96.7	77.0	68.2
85°	37.4	55.7	38.1	21.3	15.4
87.5°	13.9	12.5	3.7	3.7	3.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)