

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: P312180

Luminaire Tested: **14FCZ2-25-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: P312180  
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: 14FCZ2-25-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**

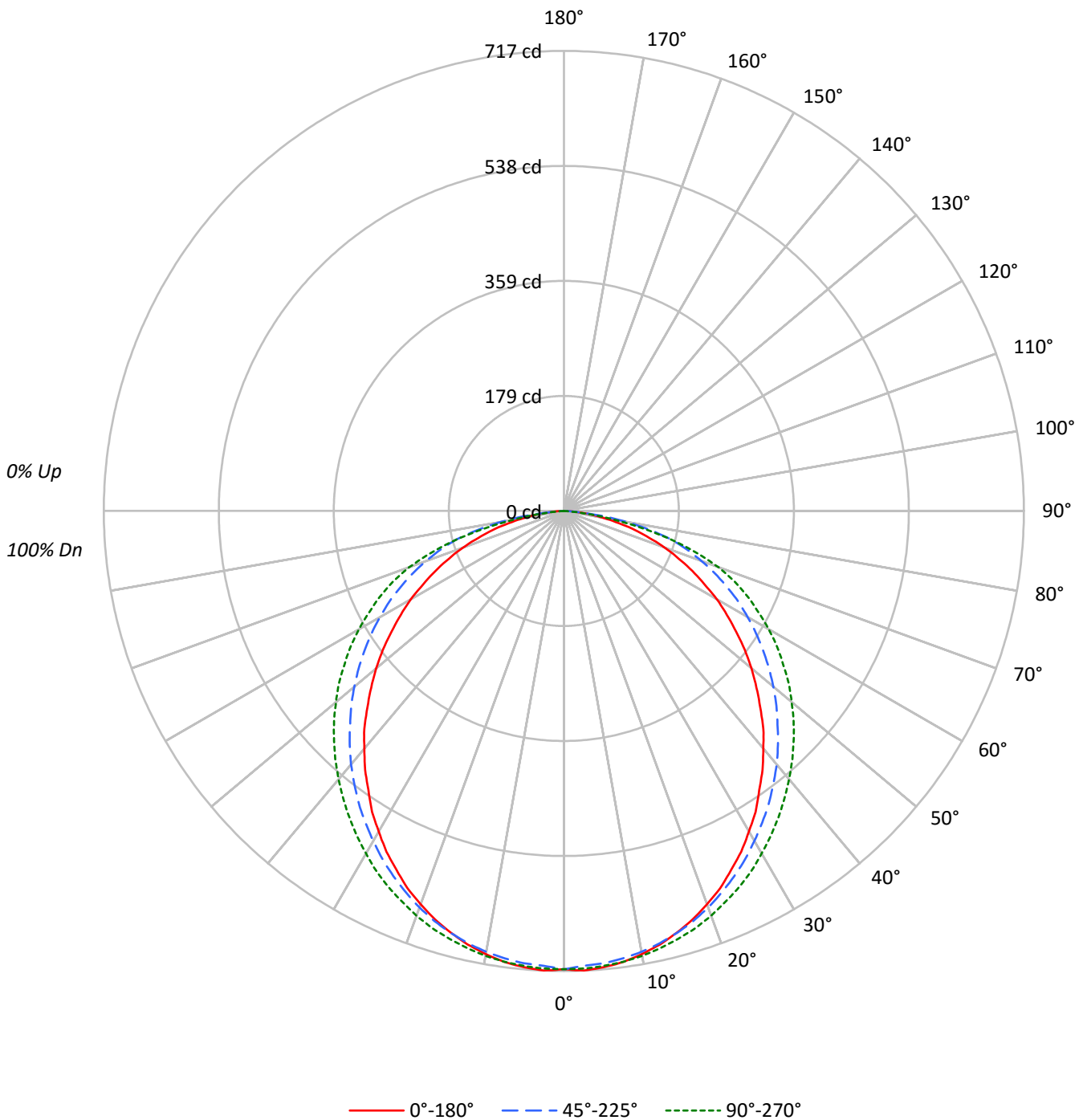
Lumens per Lamp: N/A  
Luminaire Lumens: 2073.0 lumens  
Efficiency: N/A  
Efficacy: 105.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.6  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	1922	1922	1922
5°	1928	1912	1923
10°	1916	1906	1924
15°	1896	1897	1923
20°	1868	1884	1922
25°	1832	1865	1920
30°	1793	1846	1916
35°	1745	1830	1915
40°	1698	1812	1918
45°	1647	1792	1928
50°	1598	1784	1941
55°	1537	1778	1958
60°	1483	1781	1985
65°	1407	1787	2016
70°	1320	1800	2015
75°	1197	1816	1822
80°	981	1568	1297
85°	729	741	299



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.6	3.3
10°-20°	193.0	9.3
20°-30°	290.8	14.0
30°-40°	349.0	16.8
40°-50°	363.7	17.5
50°-60°	336.7	16.2
60°-70°	272.1	13.1
70°-80°	165.9	8.0
80°-90°	34.2	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°	551.4	26.6
0°-40°	900.4	43.4
0°-60°	1600.8	77.2
0°-90°	2073.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2073.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	714	714	714	714	714	
5°	714	712	708	713	712	68
15°	680	681	681	690	690	192
25°	617	621	628	644	647	284
35°	531	539	557	577	583	333
45°	433	446	471	497	507	334
55°	328	345	379	409	417	294
65°	221	243	281	309	317	218
75°	115	140	175	178	175	121
85°	24	35	24	13	10	29
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	714.2	714.2	714.2	714.2	714.2
2.5°	716.9	714.6	709.5	714.6	713.7
5°	713.7	711.8	707.7	712.8	711.8
7.5°	709.1	707.2	703.5	709.5	708.6
10°	701.2	700.3	697.5	704.4	704.0
12.5°	692.0	691.5	690.1	698.0	697.5
15°	680.4	680.9	680.9	690.1	690.1
17.5°	667.5	668.4	670.2	680.4	681.8
20°	652.2	654.1	657.8	669.3	671.2
22.5°	636.5	637.9	643.4	657.3	659.1
25°	617.1	620.8	628.2	643.9	646.7
27.5°	598.6	601.8	612.0	628.2	632.8
30°	576.9	582.0	594.0	611.5	616.6
32.5°	556.1	561.6	575.5	595.8	600.4
35°	531.1	539.4	557.0	577.3	582.9
37.5°	508.5	516.3	536.2	558.4	564.9
40°	483.5	493.2	515.9	539.4	545.9
42.5°	460.4	469.6	494.1	518.2	526.9
45°	432.7	445.6	471.0	497.4	506.6
47.5°	407.2	420.2	449.3	477.5	485.8
50°	381.8	395.7	426.2	455.3	463.6
52.5°	355.5	370.3	403.1	432.2	441.9
55°	327.7	344.8	379.0	408.6	417.4
57.5°	301.4	318.9	355.5	385.5	394.3
60°	275.5	293.5	331.0	359.6	368.9
62.5°	246.8	268.1	306.9	335.1	342.1
65°	220.9	242.7	280.6	308.8	316.6
67.5°	193.7	217.3	255.2	281.0	288.4
70°	167.8	192.3	228.8	252.8	256.1
72.5°	140.1	165.0	202.0	217.3	217.3
75°	115.1	140.5	174.7	177.5	175.2
77.5°	87.8	116.0	138.2	132.7	127.1
80°	63.3	91.1	101.2	91.1	83.7
82.5°	42.5	66.1	61.0	48.5	43.0
85°	23.6	35.1	24.0	13.4	9.7
87.5°	8.8	7.9	2.3	2.3	2.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)