

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: P312181

Luminaire Tested: **14FCZ2-25-UNV-L83050-CP187-W2A-U-3500K**

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: P312181
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-3500K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.187" POLYCARB SHEET
Light Source: (168) 3500K 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: 2194.0 lumens
Efficiency: N/A
Efficacy: 111.9 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

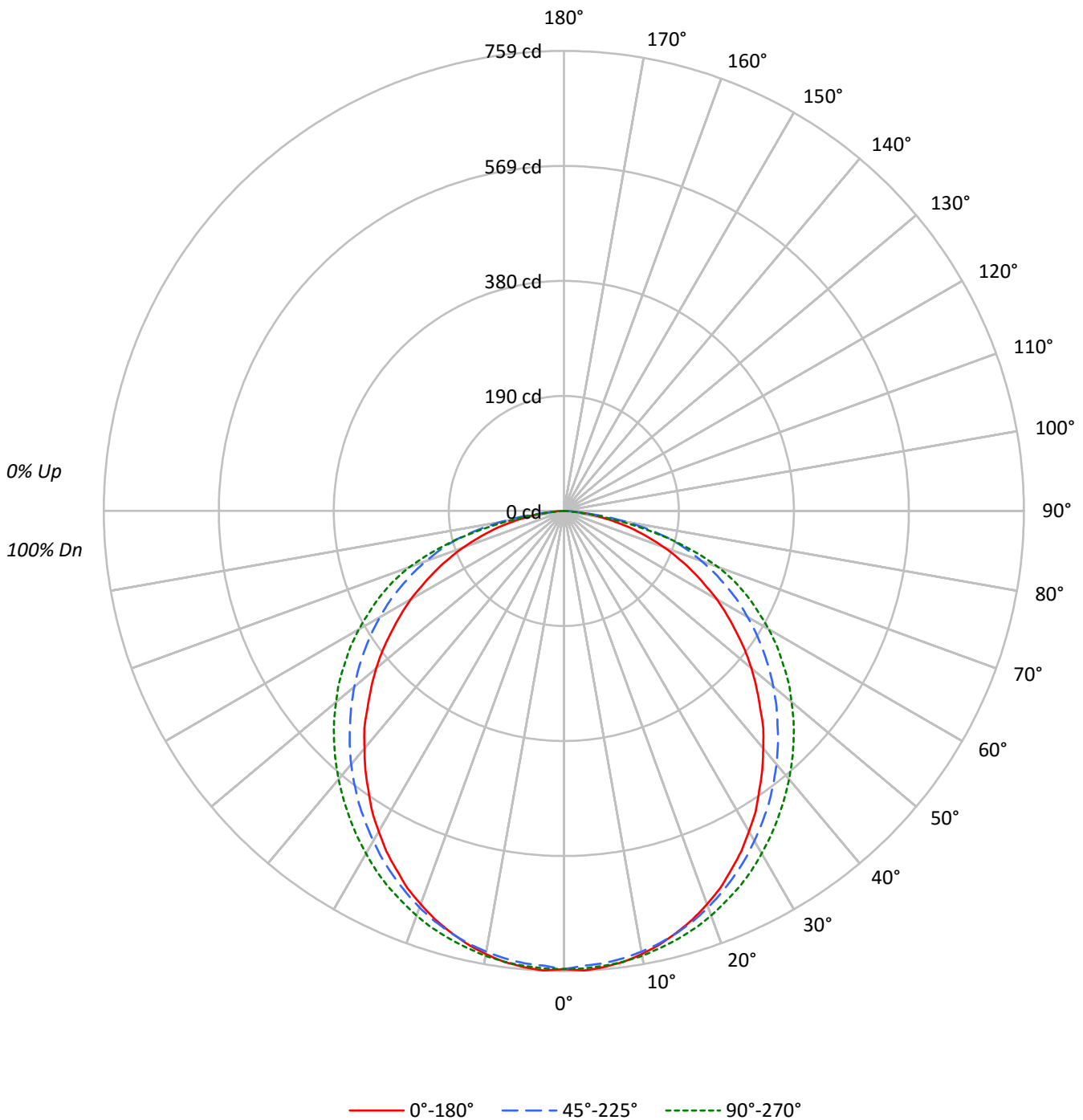
Input Watts (W): 19.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2034	2034	2034
5°	2041	2023	2035
10°	2028	2017	2036
15°	2006	2008	2035
20°	1977	1994	2034
25°	1939	1974	2032
30°	1897	1953	2028
35°	1847	1937	2027
40°	1798	1918	2030
45°	1743	1897	2041
50°	1692	1888	2054
55°	1628	1882	2073
60°	1569	1885	2101
65°	1489	1891	2134
70°	1397	1906	2132
75°	1266	1922	1928
80°	1038	1660	1371
85°	772	784	318



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.5	3.3
10°-20°	204.3	9.3
20°-30°	307.8	14.0
30°-40°	369.3	16.8
40°-50°	385.0	17.5
50°-60°	356.4	16.2
60°-70°	287.9	13.1
70°-80°	175.6	8.0
80°-90°	36.2	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°	583.6	26.6
0°-40°	952.9	43.4
0°-60°	1694.3	77.2
0°-90°	2194.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2194.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	756	756	756	756	756	
5°	755	753	749	754	753	72
15°	720	721	721	730	730	203
25°	653	657	665	682	684	301
35°	562	571	590	611	617	352
45°	458	472	498	526	536	354
55°	347	365	401	432	442	311
65°	234	257	297	327	335	231
75°	122	149	185	188	185	128
85°	25	37	25	14	10	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	755.8	755.8	755.8	755.8	755.8
2.5°	758.8	756.3	750.9	756.3	755.4
5°	755.4	753.4	749.0	754.4	753.4
7.5°	750.5	748.5	744.6	750.9	750.0
10°	742.1	741.2	738.2	745.6	745.1
12.5°	732.4	731.9	730.4	738.7	738.2
15°	720.1	720.6	720.6	730.4	730.4
17.5°	706.4	707.4	709.4	720.1	721.6
20°	690.3	692.2	696.2	708.4	710.3
22.5°	673.7	675.1	681.0	695.7	697.6
25°	653.1	657.0	664.8	681.5	684.4
27.5°	633.5	637.0	647.7	664.8	669.7
30°	610.5	615.9	628.6	647.2	652.6
32.5°	588.5	594.4	609.1	630.6	635.5
35°	562.1	570.9	589.5	611.0	616.9
37.5°	538.1	546.5	567.5	591.0	597.8
40°	511.7	522.0	546.0	570.9	577.8
42.5°	487.3	497.0	523.0	548.4	557.7
45°	457.9	471.6	498.5	526.4	536.2
47.5°	431.0	444.7	475.5	505.4	514.2
50°	404.1	418.8	451.1	481.9	490.7
52.5°	376.2	391.9	426.6	457.4	467.7
55°	346.9	365.0	401.2	432.5	441.8
57.5°	319.0	337.6	376.2	408.0	417.3
60°	291.6	310.7	350.3	380.6	390.4
62.5°	261.2	283.7	324.8	354.7	362.0
65°	233.8	256.8	297.0	326.8	335.1
67.5°	205.0	229.9	270.0	297.4	305.3
70°	177.6	203.5	242.2	267.6	271.0
72.5°	148.2	174.7	213.8	229.9	229.9
75°	121.8	148.7	184.9	187.9	185.4
77.5°	93.0	122.8	146.3	140.4	134.5
80°	67.0	96.4	107.1	96.4	88.5
82.5°	45.0	70.0	64.6	51.4	45.5
85°	25.0	37.2	25.4	14.2	10.3
87.5°	9.3	8.3	2.4	2.4	2.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)