

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: P311905

Luminaire Tested: **14FCZ2-29-UNV-L83050-HRP-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: P311905
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: 14FCZ2-29-UNV-L83050-HRP-CP187-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. 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: 1879.0 lumens
Efficiency: N/A
Efficacy: 78.9 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

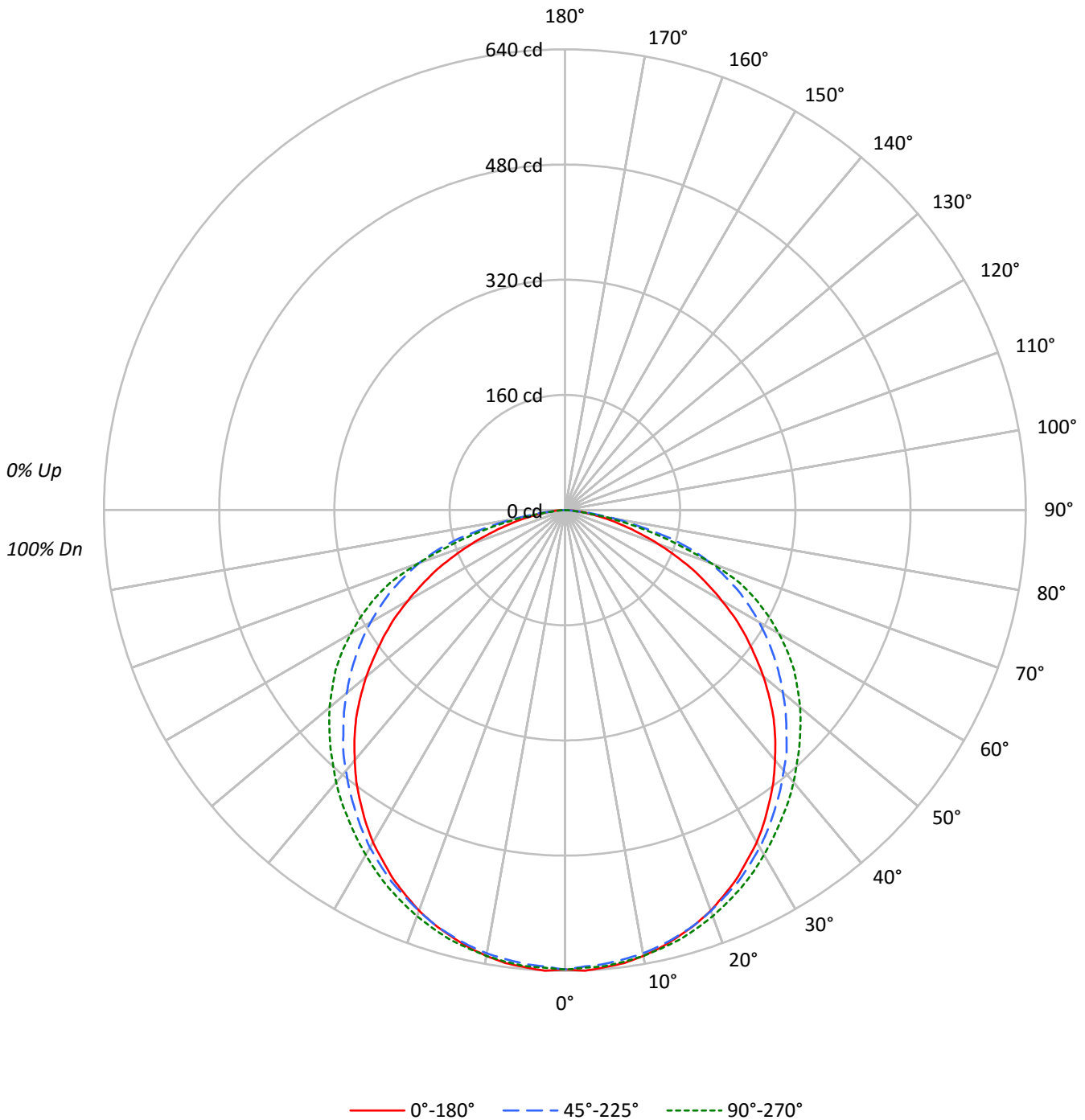
Input Watts (W): 23.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1717	1717	1717
5°	1722	1709	1717
10°	1718	1708	1718
15°	1707	1704	1720
20°	1695	1697	1719
25°	1677	1691	1719
30°	1656	1682	1718
35°	1626	1669	1722
40°	1594	1661	1735
45°	1560	1655	1754
50°	1506	1655	1786
55°	1441	1663	1824
60°	1355	1676	1848
65°	1249	1693	1859
70°	1088	1697	1710
75°	897	1578	1382
80°	705	1136	925
85°	546	438	219



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.4	3.2
10°-20°	173.3	9.2
20°-30°	263.2	14.0
30°-40°	319.0	17.0
40°-50°	336.1	17.9
50°-60°	313.8	16.7
60°-70°	250.8	13.3
70°-80°	138.0	7.3
80°-90°	24.4	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°	497.0	26.5
0°-40°	816.0	43.4
0°-60°	1465.9	78.0
0°-90°	1879.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1879.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	638	638	638	638	638	
5°	638	636	633	637	636	61
15°	613	613	612	617	617	173
25°	565	566	570	578	579	260
35°	495	500	508	521	524	310
45°	410	418	435	454	461	315
55°	307	323	354	379	389	274
65°	196	221	266	288	292	193
75°	86	124	152	136	133	93
85°	18	22	14	9	7	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	638.1	638.1	638.1	638.1	638.1
2.5°	640.5	638.7	634.6	638.1	636.3
5°	637.5	635.8	632.8	636.9	635.8
7.5°	634.6	632.2	629.3	634.0	632.8
10°	628.7	626.9	625.1	629.3	628.7
12.5°	621.6	621.0	619.2	623.9	623.3
15°	612.7	612.7	611.5	617.4	617.4
17.5°	603.3	602.7	603.3	609.8	609.2
20°	592.0	592.0	592.6	600.3	600.3
22.5°	578.4	579.0	580.8	590.3	589.7
25°	564.9	566.0	569.6	577.9	579.0
27.5°	548.3	551.3	555.4	565.4	566.6
30°	532.9	534.7	541.2	550.7	553.0
32.5°	514.6	518.2	525.3	535.9	538.9
35°	495.1	499.9	508.1	521.1	524.1
37.5°	475.6	479.8	491.0	504.6	509.9
40°	453.8	460.9	472.7	488.0	494.0
42.5°	432.5	439.6	455.5	471.5	476.8
45°	410.0	417.7	434.9	454.4	460.9
47.5°	385.2	394.1	416.0	436.6	443.7
50°	359.8	371.1	395.3	418.3	426.6
52.5°	333.2	347.4	375.2	399.4	407.1
55°	307.2	322.6	354.5	379.3	388.8
57.5°	280.7	297.2	333.2	361.6	366.9
60°	251.7	271.8	311.4	336.2	343.3
62.5°	223.3	246.4	288.9	312.6	318.5
65°	196.2	221.0	265.9	287.7	291.9
67.5°	166.6	196.2	240.5	260.6	261.7
70°	138.3	172.5	215.7	225.1	217.4
72.5°	110.5	147.1	186.7	179.0	172.5
75°	86.3	123.5	151.8	136.5	132.9
77.5°	63.8	101.0	108.7	100.4	93.9
80°	45.5	79.8	73.3	62.6	59.7
82.5°	31.3	50.2	40.2	31.3	27.2
85°	17.7	22.5	14.2	8.9	7.1
87.5°	7.7	5.3	3.0	2.4	2.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)