

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: P312055

Luminaire Tested: **14FCZ2-29-UNV-L83050-RDP-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: P312055
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-43)
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-RDP-CP187-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 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: 1590.0 lumens
Efficiency: N/A
Efficacy: 66.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.28 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

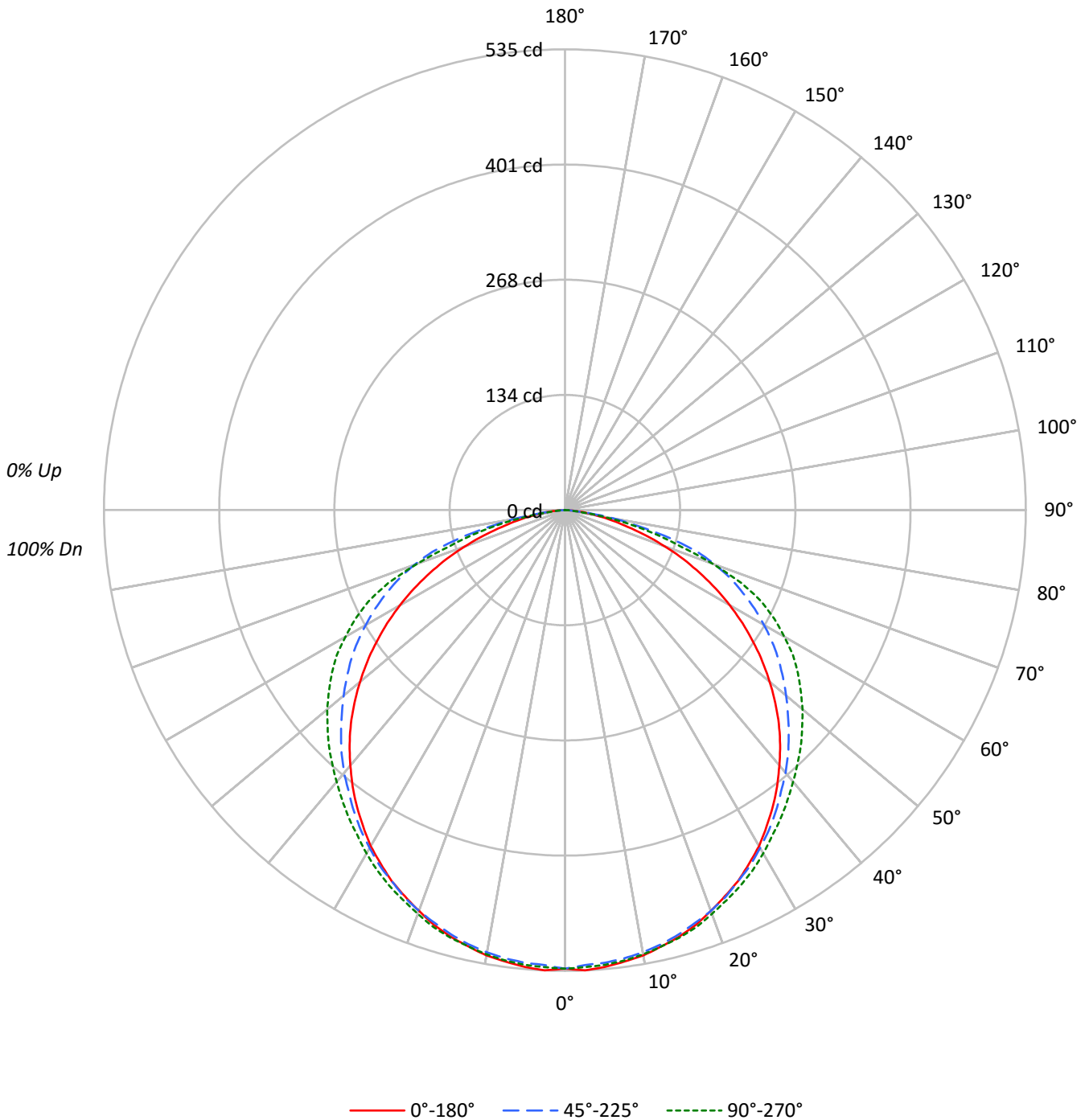
Input Watts (W): 23.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	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	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1433	1433	1433
5°	1438	1425	1432
10°	1435	1425	1431
15°	1428	1421	1432
20°	1418	1418	1429
25°	1412	1412	1430
30°	1400	1408	1431
35°	1382	1403	1435
40°	1361	1400	1448
45°	1337	1398	1474
50°	1299	1403	1507
55°	1252	1421	1549
60°	1189	1436	1583
65°	1098	1454	1605
70°	976	1465	1436
75°	787	1316	1149
80°	615	924	750
85°	423	269	191



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.4	3.2
10°-20°	144.6	9.1
20°-30°	220.2	13.8
30°-40°	268.2	16.9
40°-50°	284.5	17.9
50°-60°	268.6	16.9
60°-70°	216.8	13.6
70°-80°	117.6	7.4
80°-90°	19.0	1.2
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°	415.2	26.1
0°-40°	683.4	43.0
0°-60°	1236.5	77.8
0°-90°	1590.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1590.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	532	532	532	532	532	
5°	532	531	528	531	530	51
15°	513	511	510	514	514	145
25°	475	474	475	480	482	219
35°	421	423	427	436	437	263
45°	351	356	367	381	387	271
55°	267	278	303	323	330	238
65°	172	194	228	247	252	171
75°	76	110	127	114	110	83
85°	14	15	9	7	6	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	532.5	532.5	532.5	532.5	532.5
2.5°	535.0	532.5	528.8	532.5	531.3
5°	532.5	531.3	527.6	531.3	530.0
7.5°	528.8	528.8	525.1	527.6	527.6
10°	525.1	523.8	521.4	525.1	523.8
12.5°	518.9	517.6	516.4	520.1	518.9
15°	512.7	511.4	510.2	513.9	513.9
17.5°	505.2	504.0	502.7	507.7	507.7
20°	495.3	495.3	495.3	500.3	499.0
22.5°	485.4	485.4	486.6	491.6	490.3
25°	475.4	474.2	475.4	480.4	481.6
27.5°	463.0	464.3	465.5	470.5	471.7
30°	450.6	451.8	453.1	459.3	460.5
32.5°	435.7	438.2	440.7	448.1	448.1
35°	420.8	423.3	427.0	435.7	436.9
37.5°	404.7	407.2	412.1	422.1	424.5
40°	387.3	391.0	398.5	408.4	412.1
42.5°	369.9	374.9	383.6	394.7	399.7
45°	351.3	356.3	367.4	381.1	387.3
47.5°	331.4	337.6	351.3	368.7	373.6
50°	310.3	319.0	335.2	353.8	360.0
52.5°	289.2	299.2	319.0	338.9	345.1
55°	266.9	278.1	302.9	322.7	330.2
57.5°	244.5	257.0	285.5	306.6	314.1
60°	221.0	235.9	266.9	288.0	294.2
62.5°	197.4	214.8	248.3	269.4	274.3
65°	172.5	193.6	228.4	247.0	252.0
67.5°	149.0	173.8	208.5	222.2	222.2
70°	124.1	151.4	186.2	189.9	182.5
72.5°	99.3	130.3	161.4	147.7	141.5
75°	75.7	110.5	126.6	114.2	110.5
77.5°	57.1	89.4	89.4	81.9	79.4
80°	39.7	68.3	59.6	52.1	48.4
82.5°	26.1	38.5	31.0	24.8	21.1
85°	13.7	14.9	8.7	7.4	6.2
87.5°	5.0	2.5	1.2	2.5	1.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)