

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: P312132

Luminaire Tested: **14FCZ2-44-UNV-L83050-RDP-CP187-W2A-U-4000K**

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: P312132
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: 14FCZ2-44-UNV-L83050-RDP-CP187-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.187" POLYCARB SHEET
Light Source: (168) 4000K 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: 2620.0 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

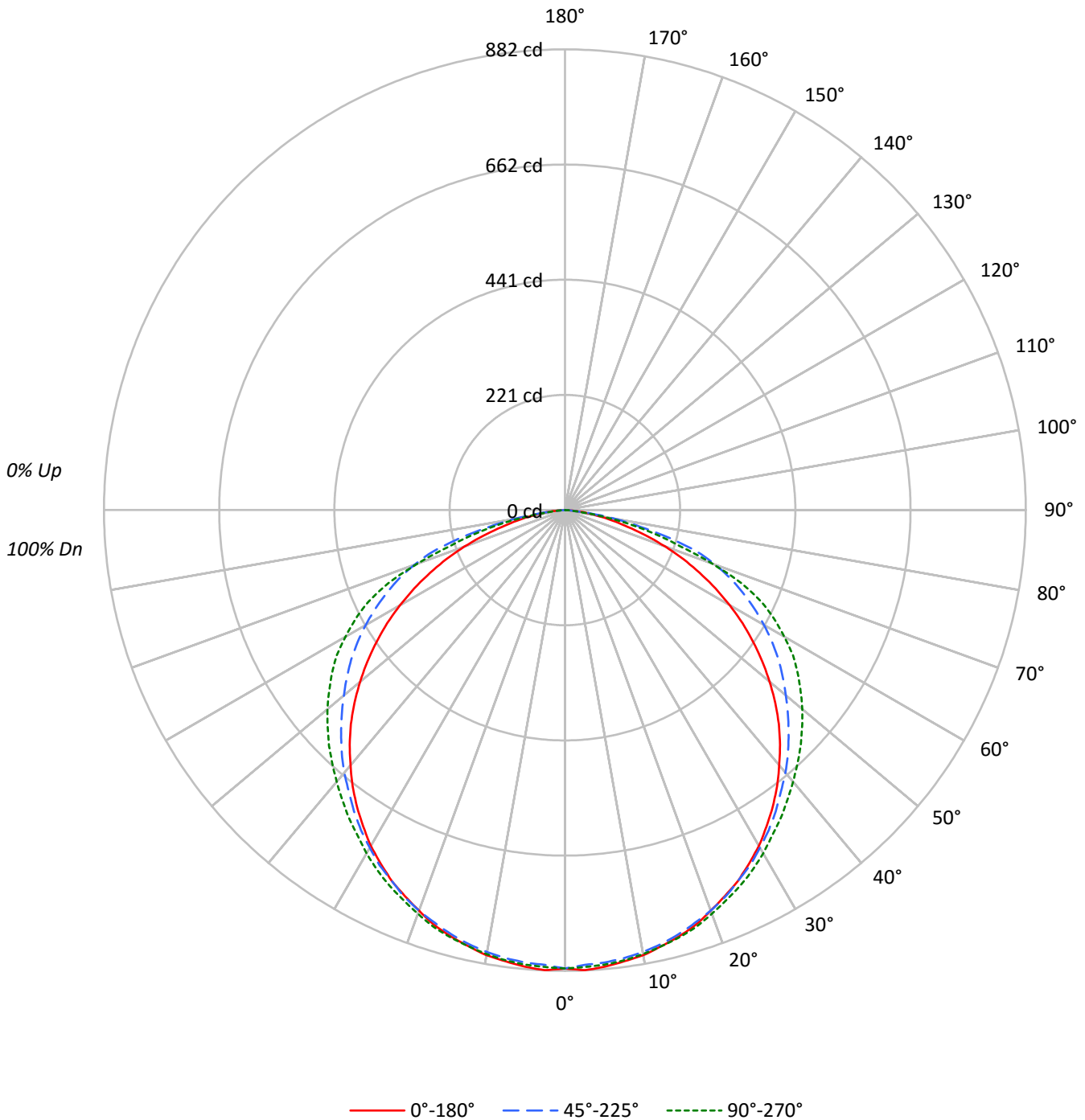
Input Watts (W): 39.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2361	2361	2361
5°	2370	2348	2359
10°	2364	2347	2359
15°	2354	2342	2359
20°	2337	2337	2355
25°	2326	2326	2356
30°	2307	2320	2358
35°	2278	2311	2365
40°	2242	2307	2386
45°	2203	2304	2429
50°	2141	2312	2483
55°	2063	2342	2553
60°	1960	2367	2609
65°	1810	2397	2644
70°	1609	2414	2366
75°	1298	2169	1892
80°	1015	1522	1237
85°	695	442	315



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.1	3.2
10°-20°	238.3	9.1
20°-30°	362.8	13.8
30°-40°	441.9	16.9
40°-50°	468.9	17.9
50°-60°	442.5	16.9
60°-70°	357.3	13.6
70°-80°	193.8	7.4
80°-90°	31.4	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°	684.2	26.1
0°-40°	1126.1	43.0
0°-60°	2037.5	77.8
0°-90°	2620.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2620.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	878	878	878	878	878	
5°	878	876	869	876	873	83
15°	845	843	841	847	847	238
25°	783	781	783	792	794	361
35°	693	698	704	718	720	434
45°	579	587	606	628	638	446
55°	440	458	499	532	544	393
65°	284	319	376	407	415	282
75°	125	182	209	188	182	136
85°	22	24	14	12	10	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	877.5	877.5	877.5	877.5	877.5
2.5°	881.6	877.5	871.4	877.5	875.5
5°	877.5	875.5	869.3	875.5	873.4
7.5°	871.4	871.4	865.2	869.3	869.3
10°	865.2	863.2	859.1	865.2	863.2
12.5°	855.0	853.0	850.9	857.1	855.0
15°	844.8	842.7	840.7	846.8	846.8
17.5°	832.5	830.5	828.4	836.6	836.6
20°	816.1	816.1	816.1	824.3	822.3
22.5°	799.8	799.8	801.8	810.0	808.0
25°	783.4	781.4	783.4	791.6	793.6
27.5°	763.0	765.0	767.0	775.2	777.3
30°	742.5	744.5	746.6	756.8	758.9
32.5°	718.0	722.0	726.1	738.4	738.4
35°	693.4	697.5	703.6	718.0	720.0
37.5°	666.8	670.9	679.1	695.5	699.5
40°	638.2	644.3	656.6	673.0	679.1
42.5°	609.5	617.7	632.0	650.5	658.6
45°	578.9	587.0	605.5	628.0	638.2
47.5°	546.1	556.4	578.9	607.5	615.7
50°	511.4	525.7	552.3	583.0	593.2
52.5°	476.6	493.0	525.7	558.4	568.6
55°	439.8	458.2	499.1	531.8	544.1
57.5°	403.0	423.4	470.5	505.2	517.5
60°	364.1	388.6	439.8	474.5	484.8
62.5°	325.2	353.9	409.1	443.9	452.0
65°	284.3	319.1	376.4	407.0	415.2
67.5°	245.5	286.4	343.6	366.1	366.1
70°	204.5	249.5	306.8	313.0	300.7
72.5°	163.6	214.8	265.9	243.4	233.2
75°	124.8	182.0	208.6	188.2	182.0
77.5°	94.1	147.3	147.3	135.0	130.9
80°	65.5	112.5	98.2	85.9	79.8
82.5°	43.0	63.4	51.1	40.9	34.8
85°	22.5	24.5	14.3	12.3	10.2
87.5°	8.2	4.1	2.0	4.1	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)