

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: P313490

Luminaire Tested: **24FCZ2-35-UNV-L83050-RDP-CA08-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: P313490
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-35-UNV-L83050-RDP-CA08-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" ACRYLIC 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: 2067.0 lumens
Efficiency: N/A
Efficacy: 74.1 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

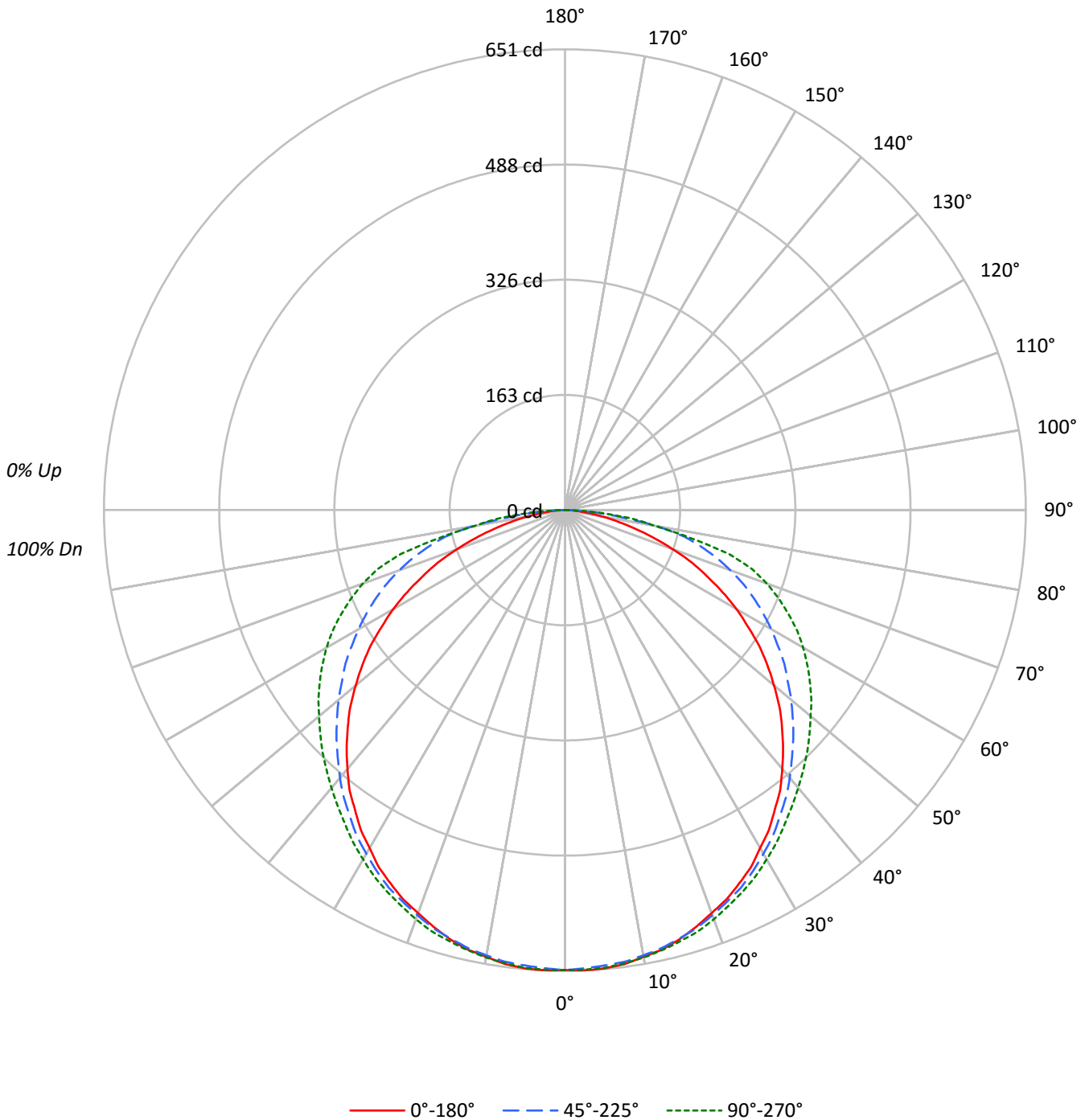
Input Watts (W): 27.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	875	875	875
5°	878	872	877
10°	875	873	877
15°	874	873	878
20°	868	872	881
25°	864	874	883
30°	857	871	886
35°	849	869	889
40°	839	868	900
45°	825	868	921
50°	807	873	949
55°	787	887	991
60°	753	905	1046
65°	705	937	1110
70°	641	980	1194
75°	544	1034	1247
80°	429	1041	1009
85°	316	792	886



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.7	3.0
10°-20°	177.5	8.6
20°-30°	271.4	13.1
30°-40°	331.7	16.0
40°-50°	353.6	17.1
50°-60°	338.1	16.4
60°-70°	286.4	13.9
70°-80°	192.5	9.3
80°-90°	54.3	2.6
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°	510.5	24.7
0°-40°	842.2	40.7
0°-60°	1533.9	74.2
0°-90°	2067.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2067.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	650	650	650	650	650	
5°	650	649	646	649	649	62
15°	628	628	626	632	630	177
25°	582	584	588	594	595	268
35°	517	521	529	539	541	324
45°	434	441	456	476	484	334
55°	335	348	378	408	422	299
65°	222	244	294	333	349	220
75°	105	142	199	233	240	112
85°	20	42	51	55	57	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	650.0	650.0	650.0	650.0	650.0
2.5°	651.0	651.0	648.0	650.0	650.0
5°	650.0	649.0	645.9	649.0	649.0
7.5°	646.9	645.9	643.9	646.9	645.9
10°	640.8	640.8	638.7	641.8	641.8
12.5°	635.7	634.6	633.6	637.7	636.7
15°	627.5	627.5	626.4	631.6	630.5
17.5°	617.2	618.2	619.3	623.4	624.4
20°	605.9	608.0	609.0	615.2	615.2
22.5°	595.7	596.7	598.7	604.9	604.9
25°	582.3	584.4	588.5	593.6	594.6
27.5°	569.0	570.0	575.2	582.3	583.4
30°	551.6	554.7	560.8	569.0	570.0
32.5°	536.2	539.3	546.5	554.7	556.7
35°	516.7	520.8	529.0	539.3	541.3
37.5°	499.3	502.4	512.6	523.9	527.0
40°	477.8	483.9	494.2	507.5	512.6
42.5°	456.2	462.4	474.7	492.1	498.3
45°	433.7	440.9	456.2	475.7	483.9
47.5°	411.1	419.3	436.8	459.3	468.5
50°	385.5	395.7	417.3	442.9	453.2
52.5°	360.9	373.2	396.8	425.5	438.8
55°	335.3	347.6	378.3	408.1	422.4
57.5°	306.6	323.0	356.8	390.6	406.0
60°	279.9	295.3	336.3	373.2	388.6
62.5°	251.2	271.7	315.8	354.7	370.1
65°	221.5	244.0	294.2	333.2	348.6
67.5°	194.8	219.4	272.7	311.7	327.1
70°	163.0	193.8	249.1	288.1	303.5
72.5°	133.3	167.1	224.5	262.5	276.8
75°	104.6	142.5	198.9	232.7	239.9
77.5°	77.9	117.9	172.2	186.6	181.5
80°	55.4	94.3	134.3	127.1	130.2
82.5°	35.9	71.8	83.0	94.3	97.4
85°	20.5	42.0	51.3	55.4	57.4
87.5°	9.2	15.4	20.5	20.5	19.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)