

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: P311940

Luminaire Tested: **14FCZ2-39-UNV-L83050-HRP-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: P311940
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: 14FCZ2-39-UNV-L83050-HRP-CA08-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 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: 2665.0 lumens
Efficiency: N/A
Efficacy: 80.3 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

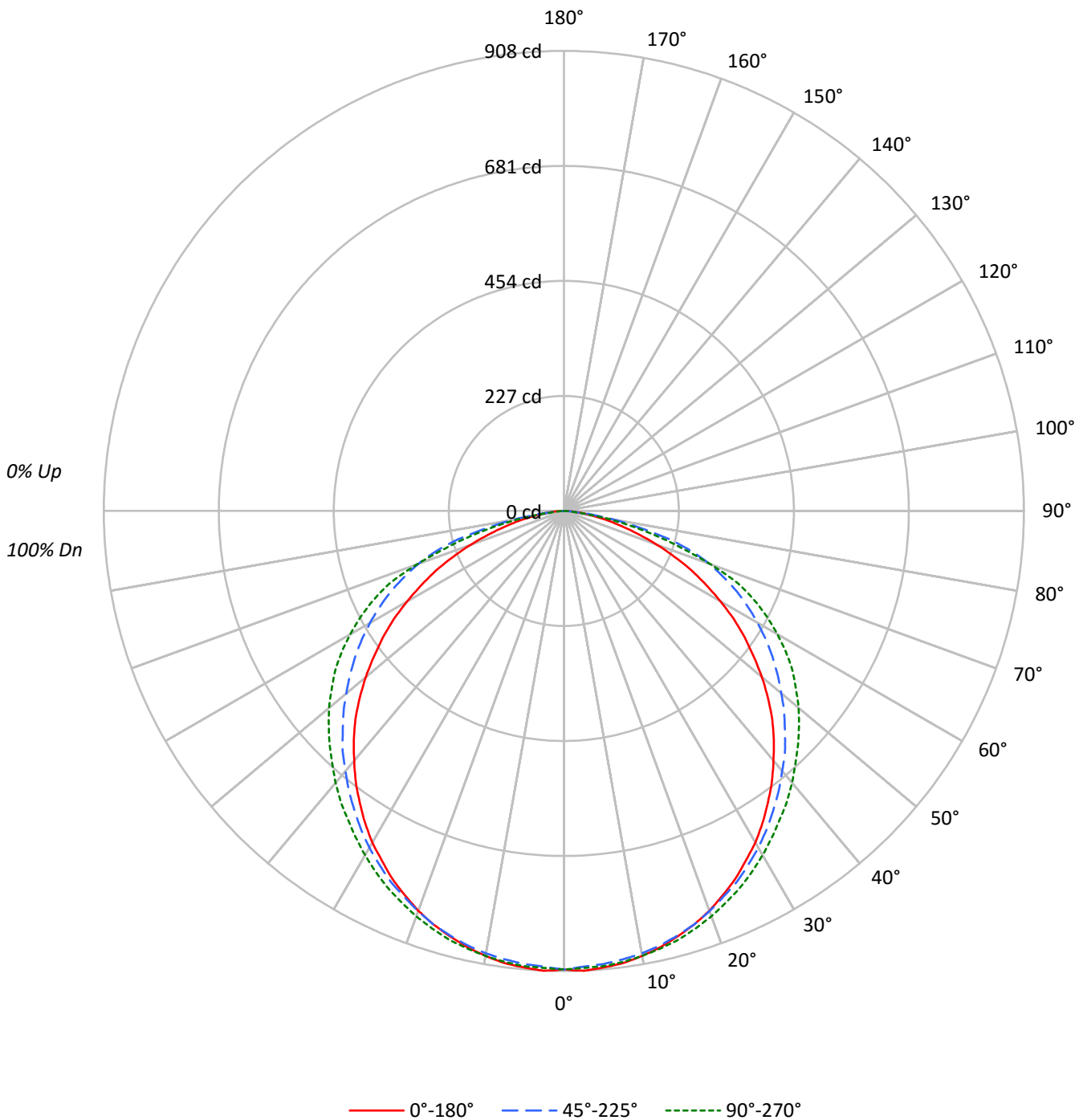
Input Watts (W): 33.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2435	2435	2435
5°	2442	2424	2436
10°	2436	2423	2436
15°	2421	2416	2440
20°	2405	2407	2438
25°	2379	2398	2438
30°	2349	2385	2437
35°	2307	2368	2442
40°	2261	2355	2461
45°	2213	2347	2487
50°	2136	2347	2533
55°	2045	2359	2587
60°	1921	2377	2620
65°	1771	2401	2636
70°	1543	2407	2426
75°	1272	2240	1961
80°	1000	1610	1311
85°	775	621	312



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.7	3.2
10°-20°	245.9	9.2
20°-30°	373.4	14.0
30°-40°	452.4	17.0
40°-50°	476.7	17.9
50°-60°	445.0	16.7
60°-70°	355.7	13.3
70°-80°	195.7	7.3
80°-90°	34.5	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°	704.9	26.5
0°-40°	1157.3	43.4
0°-60°	2079.1	78.0
0°-90°	2665.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2665.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	905	905	905	905	905	
5°	904	902	898	903	902	86
15°	869	869	867	876	876	245
25°	801	803	808	820	821	369
35°	702	709	721	739	743	439
45°	582	592	617	644	654	447
55°	436	458	503	538	551	389
65°	278	313	377	408	414	274
75°	122	175	215	194	189	132
85°	25	32	20	13	10	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	905.0	905.0	905.0	905.0	905.0
2.5°	908.4	905.9	900.0	905.0	902.5
5°	904.2	901.7	897.5	903.4	901.7
7.5°	900.0	896.7	892.5	899.2	897.5
10°	891.6	889.1	886.6	892.5	891.6
12.5°	881.6	880.7	878.2	884.9	884.1
15°	869.0	869.0	867.3	875.7	875.7
17.5°	855.6	854.8	855.6	864.8	864.0
20°	839.7	839.7	840.5	851.4	851.4
22.5°	820.4	821.2	823.8	837.2	836.3
25°	801.1	802.8	807.8	819.6	821.2
27.5°	777.7	781.9	787.7	802.0	803.6
30°	755.9	758.4	767.6	781.0	784.4
32.5°	729.9	734.9	745.0	760.1	764.3
35°	702.2	709.0	720.7	739.1	743.3
37.5°	674.6	680.5	696.4	715.7	723.2
40°	643.6	653.6	670.4	692.2	700.6
42.5°	613.4	623.5	646.1	668.7	676.3
45°	581.6	592.5	616.8	644.4	653.6
47.5°	546.4	559.0	590.0	619.3	629.3
50°	510.3	526.3	560.6	593.3	605.0
52.5°	472.6	492.7	532.1	566.5	577.4
55°	435.8	457.6	502.8	538.0	551.4
57.5°	398.1	421.5	472.6	512.9	520.4
60°	357.0	385.5	441.6	476.8	486.9
62.5°	316.8	349.4	409.8	443.3	451.7
65°	278.2	313.4	377.1	408.1	414.0
67.5°	236.3	278.2	341.1	369.6	371.2
70°	196.1	244.7	305.9	319.3	308.4
72.5°	156.7	208.7	264.8	253.9	244.7
75°	122.3	175.1	215.4	193.6	188.6
77.5°	90.5	143.3	154.2	142.5	133.2
80°	64.5	113.1	103.9	88.8	84.6
82.5°	44.4	71.2	57.0	44.4	38.5
85°	25.1	31.8	20.1	12.6	10.1
87.5°	10.9	7.5	4.2	3.4	3.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)