

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: P311916

Luminaire Tested: **14FCZ2-35-UNV-L83050-HRP-CA08-W2A-U-3500K**

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: P311916
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: 14FCZ2-35-UNV-L83050-HRP-CA08-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 3500K 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: 2555.0 lumens
Efficiency: N/A
Efficacy: 86.6 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

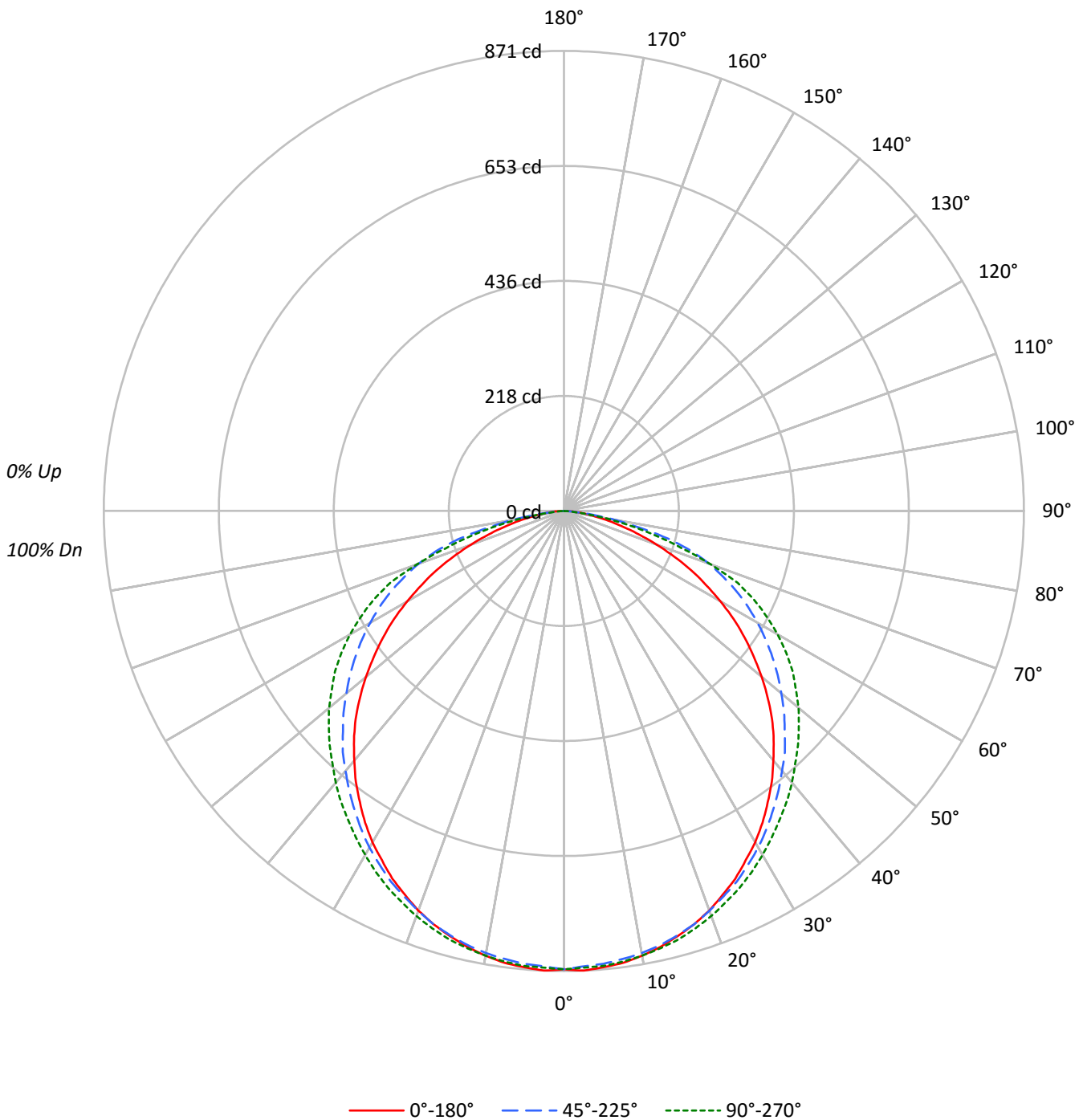
Input Watts (W): 29.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2335	2335	2335
5°	2342	2324	2335
10°	2336	2323	2336
15°	2321	2316	2339
20°	2305	2308	2338
25°	2281	2300	2338
30°	2252	2287	2337
35°	2212	2270	2341
40°	2167	2258	2360
45°	2122	2250	2385
50°	2048	2250	2429
55°	1960	2262	2480
60°	1842	2279	2512
65°	1698	2302	2527
70°	1479	2307	2327
75°	1220	2147	1880
80°	959	1543	1257
85°	744	596	296



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.1	3.2
10°-20°	235.7	9.2
20°-30°	358.0	14.0
30°-40°	433.7	17.0
40°-50°	457.0	17.9
50°-60°	426.7	16.7
60°-70°	341.0	13.3
70°-80°	187.6	7.3
80°-90°	33.1	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°	675.8	26.5
0°-40°	1109.5	43.4
0°-60°	1993.3	78.0
0°-90°	2555.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2555.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	868	868	868	868	868	
5°	867	864	860	866	864	82
15°	833	833	832	840	840	235
25°	768	770	774	786	787	354
35°	673	680	691	709	713	421
45°	558	568	591	618	627	429
55°	418	439	482	516	529	373
65°	267	300	362	391	397	263
75°	117	168	206	186	181	126
85°	24	30	19	12	10	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	867.7	867.7	867.7	867.7	867.7
2.5°	870.9	868.5	862.9	867.7	865.3
5°	866.9	864.5	860.5	866.1	864.5
7.5°	862.9	859.7	855.6	862.1	860.5
10°	854.8	852.4	850.0	855.6	854.8
12.5°	845.2	844.4	842.0	848.4	847.6
15°	833.1	833.1	831.5	839.6	839.6
17.5°	820.3	819.5	820.3	829.1	828.3
20°	805.0	805.0	805.8	816.3	816.3
22.5°	786.5	787.3	789.8	802.6	801.8
25°	768.1	769.7	774.5	785.7	787.3
27.5°	745.6	749.6	755.2	768.9	770.5
30°	724.7	727.1	735.9	748.8	752.0
32.5°	699.8	704.6	714.2	728.7	732.7
35°	673.3	679.7	690.9	708.6	712.6
37.5°	646.8	652.4	667.6	686.1	693.3
40°	617.0	626.7	642.7	663.6	671.7
42.5°	588.1	597.7	619.4	641.1	648.4
45°	557.6	568.0	591.3	617.8	626.7
47.5°	523.8	535.9	565.6	593.7	603.4
50°	489.3	504.5	537.5	568.8	580.1
52.5°	453.1	472.4	510.2	543.1	553.6
55°	417.8	438.7	482.1	515.8	528.6
57.5°	381.6	404.1	453.1	491.7	498.9
60°	342.3	369.6	423.4	457.1	466.8
62.5°	303.7	335.0	392.9	425.0	433.0
65°	266.7	300.5	361.5	391.3	396.9
67.5°	226.6	266.7	327.0	354.3	355.9
70°	188.0	234.6	293.2	306.1	295.7
72.5°	150.2	200.1	253.9	243.4	234.6
75°	117.3	167.9	206.5	185.6	180.8
77.5°	86.8	137.4	147.8	136.6	127.7
80°	61.9	108.5	99.6	85.2	81.1
82.5°	42.6	68.3	54.6	42.6	37.0
85°	24.1	30.5	19.3	12.1	9.6
87.5°	10.4	7.2	4.0	3.2	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)