

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: P311923

Luminaire Tested: **14FCZ2-35-UNV-L83050-HRP-CA125-W2A-U-4500K**

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: P311923
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-CA125-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 4500K 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: 2699.0 lumens
Efficiency: N/A
Efficacy: 87.3 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

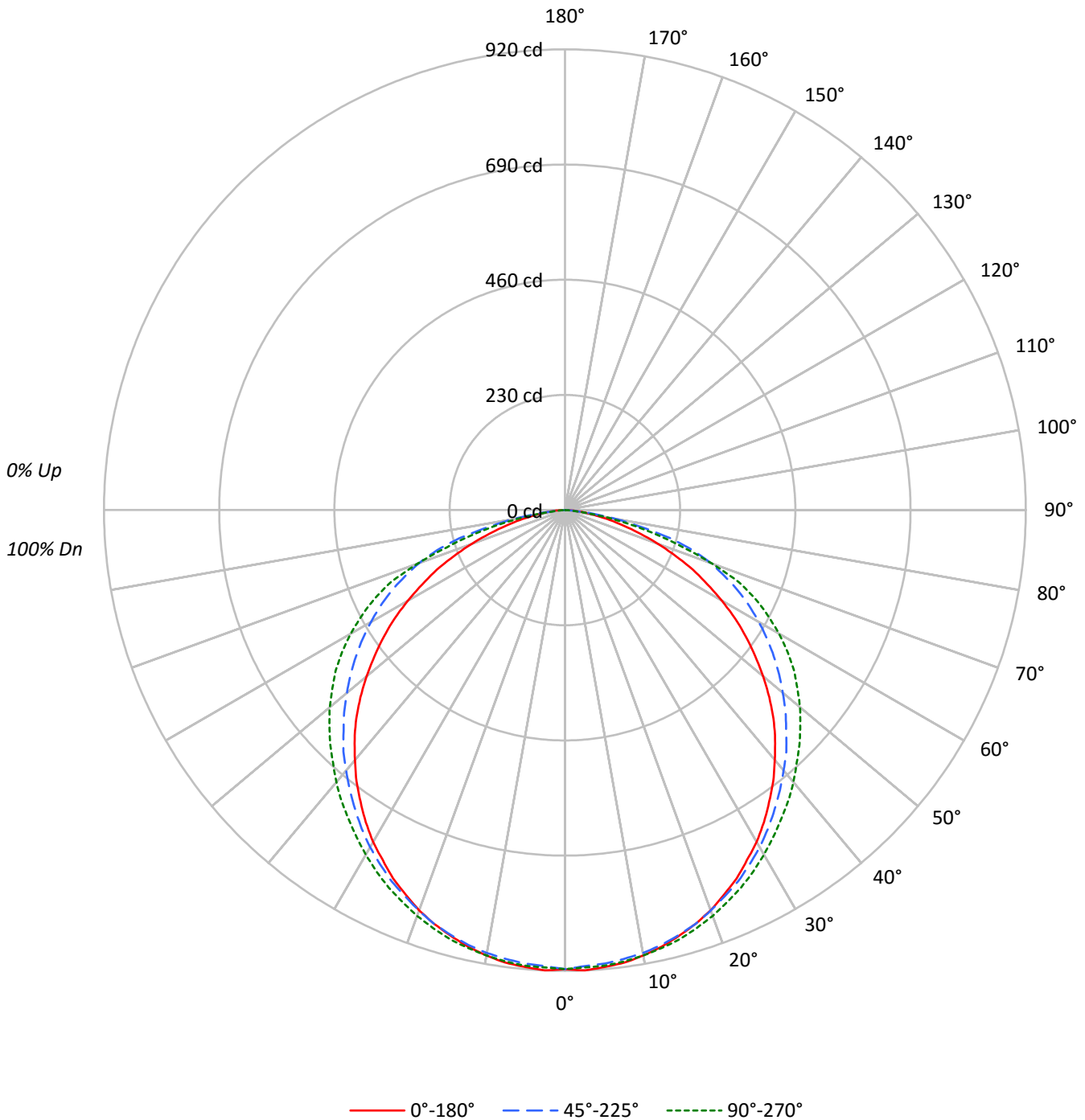
Input Watts (W): 30.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2467	2467	2467
5°	2474	2455	2467
10°	2467	2454	2467
15°	2452	2447	2471
20°	2435	2438	2469
25°	2409	2429	2469
30°	2379	2416	2468
35°	2336	2398	2473
40°	2290	2385	2492
45°	2242	2377	2519
50°	2164	2377	2565
55°	2070	2389	2620
60°	1946	2407	2654
65°	1794	2432	2670
70°	1563	2437	2457
75°	1288	2268	1986
80°	1012	1630	1328
85°	787	630	315



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.8	3.2
10°-20°	249.0	9.2
20°-30°	378.1	14.0
30°-40°	458.2	17.0
40°-50°	482.8	17.9
50°-60°	450.7	16.7
60°-70°	360.2	13.3
70°-80°	198.2	7.3
80°-90°	35.0	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°	713.9	26.5
0°-40°	1172.1	43.4
0°-60°	2105.6	78.0
0°-90°	2699.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2699.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	917	917	917	917	917	
5°	916	913	909	915	913	87
15°	880	880	878	887	887	248
25°	811	813	818	830	832	374
35°	711	718	730	749	753	445
45°	589	600	625	653	662	453
55°	441	463	509	545	558	394
65°	282	317	382	413	419	277
75°	124	177	218	196	191	133
85°	26	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°	916.6	916.6	916.6	916.6	916.6
2.5°	920.0	917.4	911.5	916.6	914.0
5°	915.7	913.2	909.0	914.9	913.2
7.5°	911.5	908.1	903.9	910.7	909.0
10°	903.0	900.5	897.9	903.9	903.0
12.5°	892.8	892.0	889.4	896.2	895.4
15°	880.1	880.1	878.4	886.9	886.9
17.5°	866.5	865.7	866.5	875.9	875.0
20°	850.4	850.4	851.2	862.3	862.3
22.5°	830.9	831.7	834.3	847.8	847.0
25°	811.4	813.1	818.1	830.0	831.7
27.5°	787.6	791.8	797.8	812.2	813.9
30°	765.5	768.1	777.4	791.0	794.4
32.5°	739.2	744.3	754.5	769.8	774.0
35°	711.2	718.0	729.9	748.6	752.8
37.5°	683.2	689.1	705.3	724.8	732.4
40°	651.8	662.0	679.0	701.0	709.5
42.5°	621.2	631.4	654.3	677.3	684.9
45°	589.0	600.0	624.6	652.6	662.0
47.5°	553.4	566.1	597.5	627.2	637.4
50°	516.9	533.0	567.8	600.9	612.8
52.5°	478.7	499.0	538.9	573.7	584.8
55°	441.3	463.4	509.2	544.9	558.4
57.5°	403.1	426.9	478.7	519.4	527.0
60°	361.5	390.4	447.3	482.9	493.1
62.5°	320.8	353.9	415.0	449.0	457.4
65°	281.8	317.4	381.9	413.3	419.3
67.5°	239.3	281.8	345.4	374.3	376.0
70°	198.6	247.8	309.8	323.4	312.3
72.5°	158.7	211.3	268.2	257.2	247.8
75°	123.9	177.4	218.1	196.0	191.0
77.5°	91.7	145.1	156.2	144.3	134.9
80°	65.3	114.6	105.2	90.0	85.7
82.5°	45.0	72.1	57.7	45.0	39.0
85°	25.5	32.3	20.4	12.7	10.2
87.5°	11.0	7.6	4.2	3.4	3.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)