

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: P311928

Luminaire Tested: **14FCZ2-35-UNV-L83050-HRP-CP125-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: P311928
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-CP125-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" POLYCARB 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: 2647.0 lumens
Efficiency: N/A
Efficacy: 85.7 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

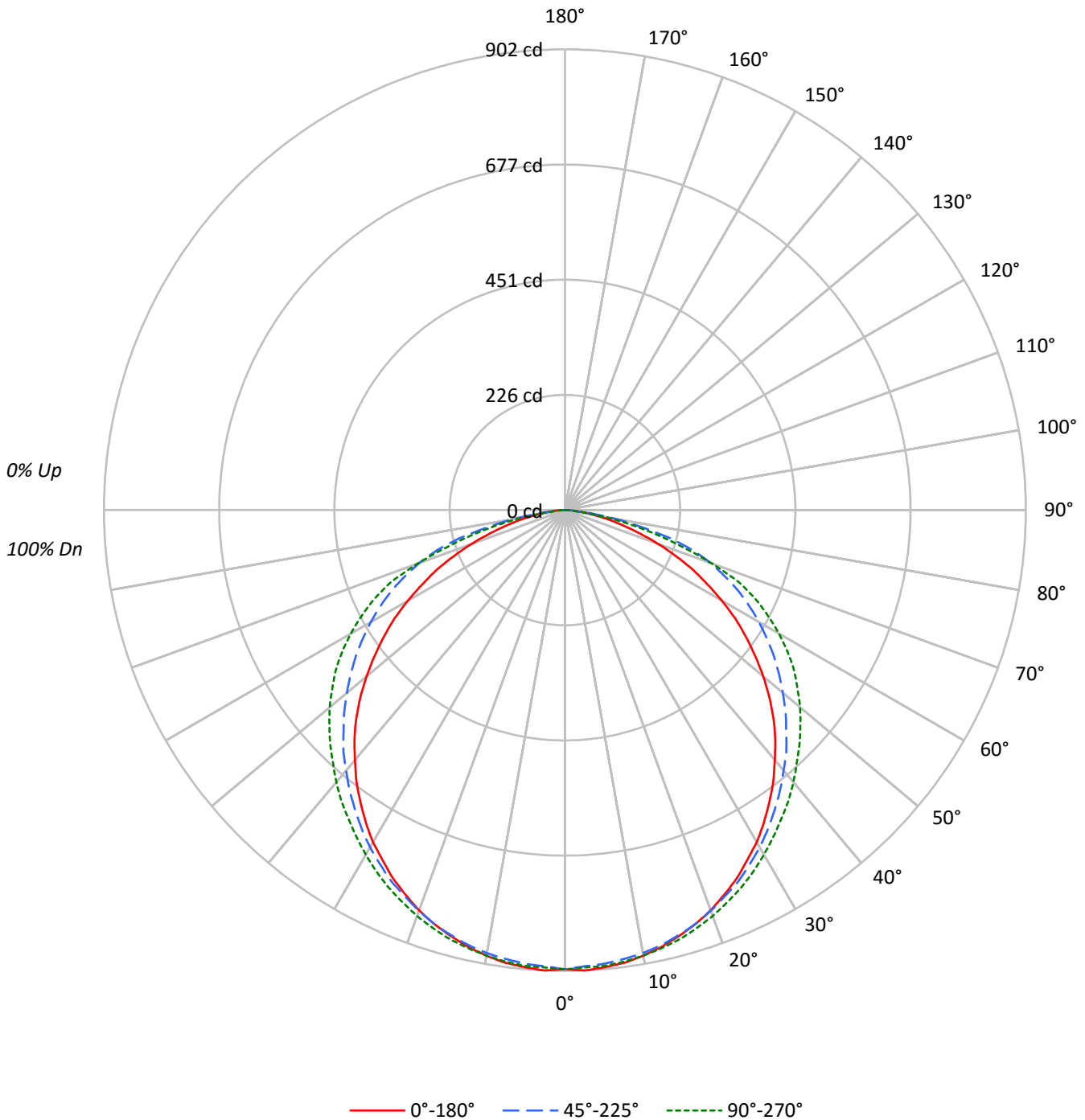
Input Watts (W): 30.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2419	2419	2419
5°	2426	2408	2419
10°	2420	2406	2420
15°	2405	2400	2423
20°	2388	2391	2422
25°	2363	2382	2422
30°	2333	2369	2421
35°	2291	2351	2425
40°	2245	2339	2444
45°	2198	2331	2471
50°	2122	2331	2516
55°	2031	2343	2570
60°	1908	2361	2603
65°	1759	2385	2618
70°	1533	2390	2410
75°	1263	2224	1947
80°	993	1599	1303
85°	772	618	309



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.1	3.2
10°-20°	244.2	9.2
20°-30°	370.8	14.0
30°-40°	449.3	17.0
40°-50°	473.5	17.9
50°-60°	442.0	16.7
60°-70°	353.3	13.3
70°-80°	194.4	7.3
80°-90°	34.3	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°	700.1	26.5
0°-40°	1149.5	43.4
0°-60°	2065.0	78.0
0°-90°	2647.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2647.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	899	899	899	899	899	
5°	898	896	891	897	896	85
15°	863	863	862	870	870	244
25°	796	797	802	814	816	366
35°	698	704	716	734	738	436
45°	578	588	613	640	649	444
55°	433	454	499	534	548	386
65°	276	311	375	405	411	272
75°	122	174	214	192	187	131
85°	25	32	20	12	10	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	898.9	898.9	898.9	898.9	898.9
2.5°	902.3	899.8	893.9	898.9	896.4
5°	898.1	895.6	891.4	897.3	895.6
7.5°	893.9	890.6	886.4	893.1	891.4
10°	885.6	883.1	880.6	886.4	885.6
12.5°	875.6	874.8	872.3	879.0	878.1
15°	863.1	863.1	861.5	869.8	869.8
17.5°	849.8	849.0	849.8	859.0	858.1
20°	834.0	834.0	834.8	845.7	845.7
22.5°	814.9	815.7	818.2	831.5	830.7
25°	795.7	797.4	802.4	814.0	815.7
27.5°	772.4	776.6	782.4	796.6	798.2
30°	750.8	753.3	762.4	775.7	779.1
32.5°	725.0	730.0	740.0	754.9	759.1
35°	697.5	704.2	715.8	734.1	738.3
37.5°	670.0	675.9	691.7	710.8	718.3
40°	639.2	649.2	665.9	687.5	695.8
42.5°	609.3	619.3	641.7	664.2	671.7
45°	577.6	588.5	612.6	640.1	649.2
47.5°	542.7	555.2	586.0	615.1	625.1
50°	506.9	522.7	556.8	589.3	601.0
52.5°	469.4	489.4	528.5	562.7	573.5
55°	432.8	454.5	499.4	534.4	547.7
57.5°	395.4	418.7	469.4	509.4	516.9
60°	354.6	382.9	438.6	473.6	483.6
62.5°	314.6	347.1	407.0	440.3	448.6
65°	276.3	311.3	374.6	405.4	411.2
67.5°	234.7	276.3	338.8	367.1	368.7
70°	194.8	243.0	303.8	317.1	306.3
72.5°	155.6	207.3	263.0	252.2	243.0
75°	121.5	174.0	213.9	192.3	187.3
77.5°	89.9	142.3	153.2	141.5	132.3
80°	64.1	112.4	103.2	88.2	84.1
82.5°	44.1	70.7	56.6	44.1	38.3
85°	25.0	31.6	20.0	12.5	10.0
87.5°	10.8	7.5	4.2	3.3	3.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)