

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: P312201

Luminaire Tested: **14FCZ2-29-UNV-L83050-CP125-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: P312201
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-49)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-29-UNV-L83050-CP125-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB 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

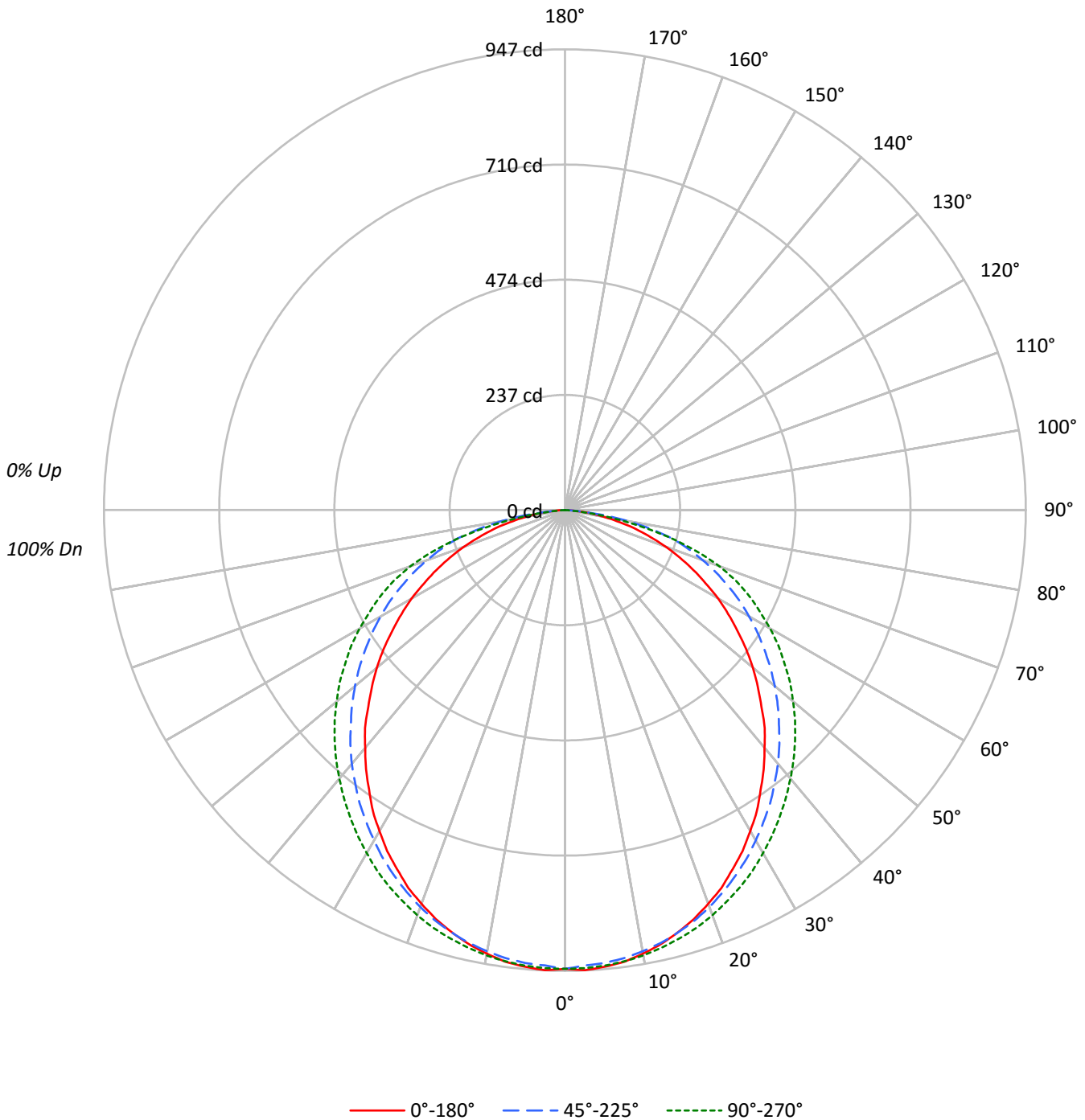
Lumens per Lamp: N/A
Luminaire Lumens: 2737.0 lumens
Efficiency: N/A
Efficacy: 115.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.8
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	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	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	39	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2537	2537	2537
5°	2545	2524	2539
10°	2530	2516	2540
15°	2503	2505	2539
20°	2466	2487	2538
25°	2419	2463	2535
30°	2367	2437	2530
35°	2303	2416	2528
40°	2243	2393	2532
45°	2174	2367	2546
50°	2110	2356	2563
55°	2030	2348	2586
60°	1957	2352	2621
65°	1857	2358	2662
70°	1743	2377	2660
75°	1580	2399	2405
80°	1296	2072	1712
85°	960	979	395



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.2	3.3
10°-20°	254.9	9.3
20°-30°	383.9	14.0
30°-40°	460.7	16.8
40°-50°	480.2	17.5
50°-60°	444.6	16.2
60°-70°	359.2	13.1
70°-80°	219.0	8.0
80°-90°	45.2	1.7
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°	728.0	26.6
0°-40°	1188.8	43.4
0°-60°	2113.6	77.2
0°-90°	2737.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2737.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	943	943	943	943	943	
5°	942	940	934	941	940	89
15°	898	899	899	911	911	253
25°	815	820	829	850	854	376
35°	701	712	735	762	770	439
45°	571	588	622	657	669	442
55°	433	455	500	540	551	388
65°	292	320	370	408	418	288
75°	152	186	231	234	231	160
85°	31	46	32	18	13	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	942.9	942.9	942.9	942.9	942.9
2.5°	946.6	943.5	936.8	943.5	942.3
5°	942.3	939.9	934.4	941.1	939.9
7.5°	936.2	933.8	928.9	936.8	935.6
10°	925.8	924.6	920.9	930.1	929.5
12.5°	913.6	913.0	911.2	921.5	920.9
15°	898.4	899.0	899.0	911.2	911.2
17.5°	881.3	882.5	884.9	898.4	900.2
20°	861.1	863.6	868.4	883.7	886.1
22.5°	840.4	842.2	849.5	867.8	870.3
25°	814.7	819.6	829.4	850.1	853.8
27.5°	790.3	794.6	808.0	829.4	835.5
30°	761.6	768.4	784.2	807.4	814.1
32.5°	734.2	741.5	759.8	786.7	792.8
35°	701.2	712.2	735.4	762.3	769.6
37.5°	671.3	681.7	707.9	737.2	745.8
40°	638.4	651.2	681.1	712.2	720.8
42.5°	607.9	620.1	652.4	684.1	695.7
45°	571.2	588.3	621.9	656.7	668.9
47.5°	537.7	554.8	593.2	630.4	641.4
50°	504.1	522.4	562.7	601.1	612.1
52.5°	469.3	488.8	532.2	570.6	583.4
55°	432.7	455.3	500.4	539.5	551.1
57.5°	397.9	421.1	469.3	509.0	520.6
60°	363.7	387.5	437.0	474.8	487.0
62.5°	325.9	354.0	405.2	442.5	451.6
65°	291.7	320.4	370.4	407.7	418.1
67.5°	255.7	286.8	336.9	371.1	380.8
70°	221.5	253.9	302.1	333.8	338.1
72.5°	184.9	217.9	266.7	286.8	286.8
75°	152.0	185.5	230.7	234.4	231.3
77.5°	116.0	153.2	182.5	175.2	167.8
80°	83.6	120.2	133.7	120.2	110.5
82.5°	56.1	87.3	80.6	64.1	56.8
85°	31.1	46.4	31.7	17.7	12.8
87.5°	11.6	10.4	3.1	3.1	3.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)