

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: P312098

Luminaire Tested: **14FCZ2-39-UNV-L83050-RDP-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: P312098
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-43)
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-RDP-CA125-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 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: 2520.0 lumens
Efficiency: N/A
Efficacy: 72.2 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.28 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

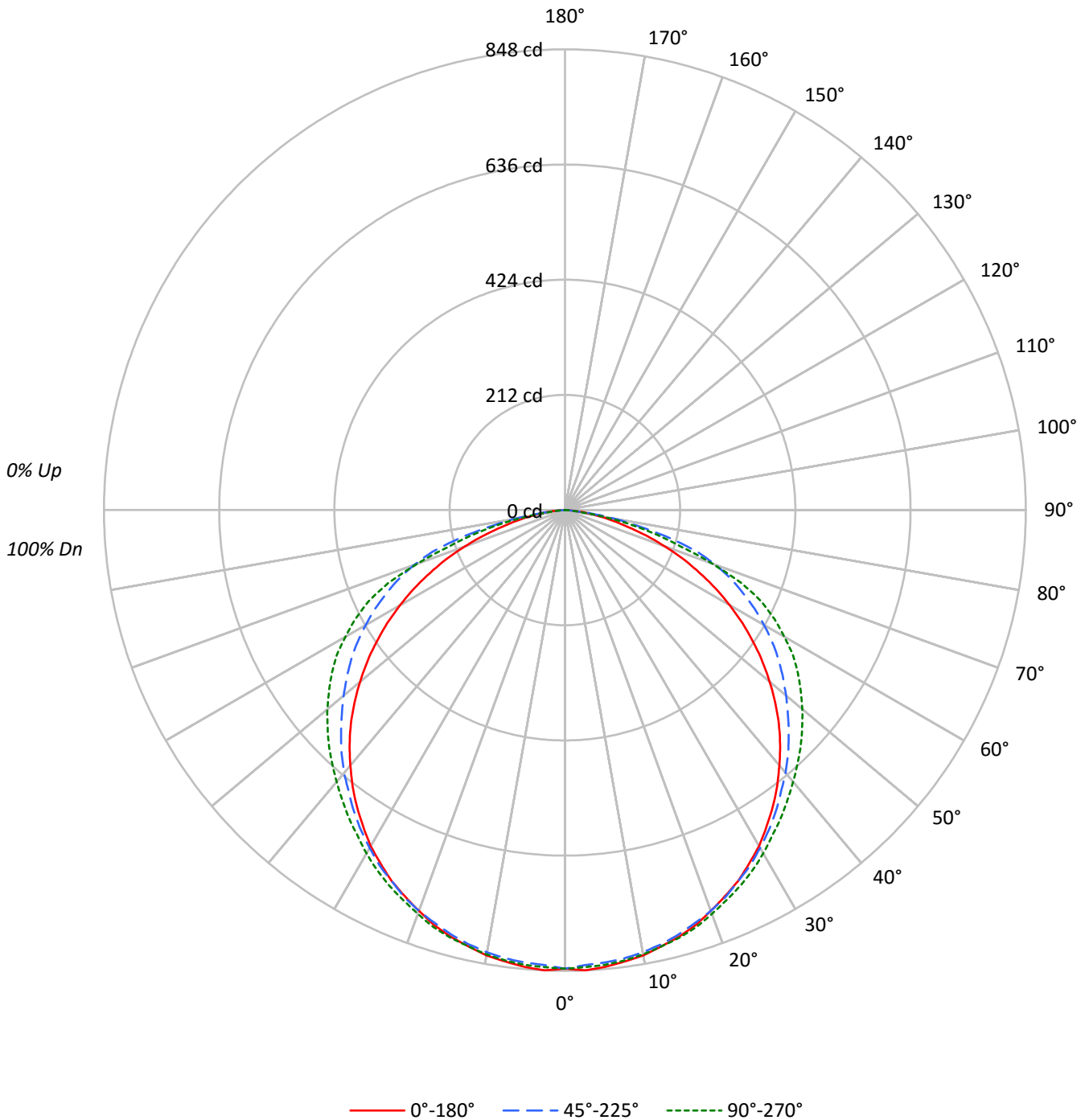
Input Watts (W): 34.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	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	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2271	2271	2271
5°	2280	2259	2269
10°	2274	2258	2269
15°	2264	2253	2269
20°	2248	2248	2265
25°	2237	2237	2266
30°	2219	2231	2268
35°	2191	2223	2275
40°	2156	2218	2295
45°	2119	2216	2336
50°	2059	2224	2388
55°	1985	2252	2455
60°	1885	2277	2510
65°	1741	2305	2543
70°	1548	2322	2275
75°	1248	2087	1821
80°	976	1463	1189
85°	667	426	303



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.9	3.2
10°-20°	229.2	9.1
20°-30°	349.0	13.8
30°-40°	425.1	16.9
40°-50°	451.0	17.9
50°-60°	425.6	16.9
60°-70°	343.7	13.6
70°-80°	186.4	7.4
80°-90°	30.2	1.2
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°	658.1	26.1
0°-40°	1083.2	43.0
0°-60°	1959.7	77.8
0°-90°	2520.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2520.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	844	844	844	844	844	
5°	844	842	836	842	840	80
15°	812	811	809	814	814	229
25°	754	752	754	761	763	347
35°	667	671	677	691	692	417
45°	557	565	582	604	614	429
55°	423	441	480	512	523	378
65°	274	307	362	392	399	271
75°	120	175	201	181	175	131
85°	22	24	14	12	10	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	844.0	844.0	844.0	844.0	844.0
2.5°	847.9	844.0	838.1	844.0	842.0
5°	844.0	842.0	836.1	842.0	840.1
7.5°	838.1	838.1	832.2	836.1	836.1
10°	832.2	830.2	826.3	832.2	830.2
12.5°	822.4	820.4	818.4	824.3	822.4
15°	812.5	810.6	808.6	814.5	814.5
17.5°	800.7	798.8	796.8	804.7	804.7
20°	785.0	785.0	785.0	792.9	790.9
22.5°	769.3	769.3	771.2	779.1	777.1
25°	753.5	751.5	753.5	761.4	763.3
27.5°	733.8	735.8	737.8	745.6	747.6
30°	714.2	716.1	718.1	727.9	729.9
32.5°	690.6	694.5	698.4	710.2	710.2
35°	666.9	670.9	676.8	690.6	692.5
37.5°	641.4	645.3	653.2	668.9	672.8
40°	613.8	619.7	631.5	647.3	653.2
42.5°	586.3	594.2	607.9	625.6	633.5
45°	556.8	564.6	582.3	604.0	613.8
47.5°	525.3	535.1	556.8	584.3	592.2
50°	491.8	505.6	531.2	560.7	570.5
52.5°	458.4	474.1	505.6	537.1	546.9
55°	423.0	440.7	480.0	511.5	523.3
57.5°	387.6	407.3	452.5	485.9	497.8
60°	350.2	373.8	423.0	456.4	466.3
62.5°	312.8	340.4	393.5	426.9	434.8
65°	273.5	306.9	362.0	391.5	399.4
67.5°	236.1	275.4	330.5	352.2	352.2
70°	196.7	240.0	295.1	301.0	289.2
72.5°	157.4	206.6	255.8	234.1	224.3
75°	120.0	175.1	200.7	181.0	175.1
77.5°	90.5	141.7	141.7	129.8	125.9
80°	63.0	108.2	94.4	82.6	76.7
82.5°	41.3	61.0	49.2	39.3	33.4
85°	21.6	23.6	13.8	11.8	9.8
87.5°	7.9	3.9	2.0	3.9	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)