

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: P312120

Luminaire Tested: **14FCZ2-44-UNV-L83050-RDP-CA125-W2A-U-3000K**

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: P312120
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: 14FCZ2-44-UNV-L83050-RDP-CA125-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.125" ACRYLIC SHEET
Light Source: (168) 3000K 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: 2511.0 lumens
Efficiency: N/A
Efficacy: 65.7 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

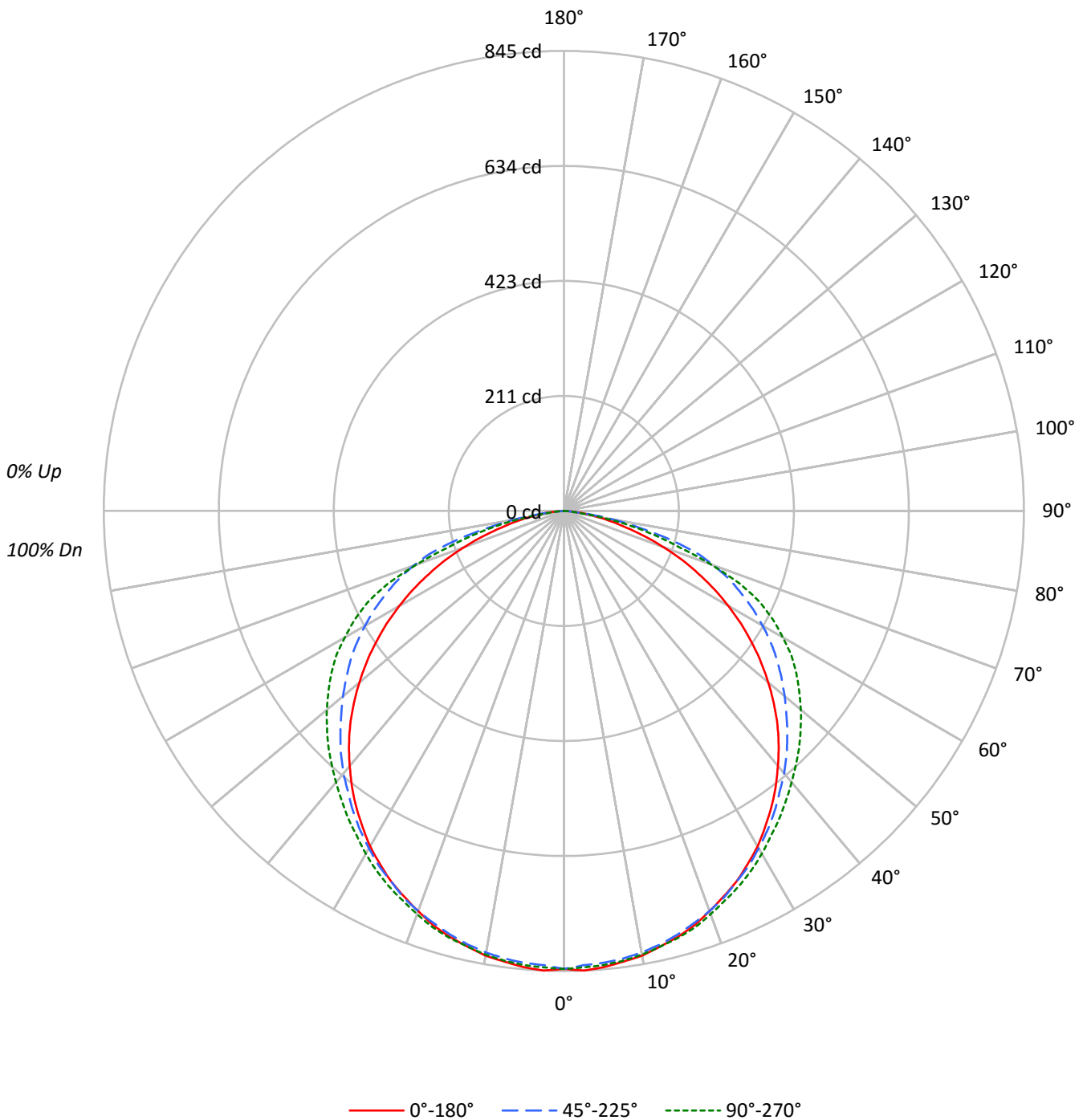
Input Watts (W): 38.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2263	2263	2263
5°	2272	2251	2261
10°	2266	2250	2261
15°	2255	2245	2261
20°	2240	2240	2257
25°	2229	2229	2258
30°	2211	2223	2260
35°	2183	2215	2267
40°	2148	2211	2286
45°	2111	2208	2328
50°	2052	2216	2380
55°	1978	2244	2447
60°	1878	2268	2500
65°	1735	2297	2534
70°	1542	2314	2268
75°	1243	2079	1814
80°	972	1458	1185
85°	667	423	303



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.6	3.2
10°-20°	228.4	9.1
20°-30°	347.8	13.8
30°-40°	423.6	16.9
40°-50°	449.4	17.9
50°-60°	424.1	16.9
60°-70°	342.4	13.6
70°-80°	185.8	7.4
80°-90°	30.1	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°	655.7	26.1
0°-40°	1079.3	43.0
0°-60°	1952.8	77.8
0°-90°	2511.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2511.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	841	841	841	841	841	
5°	841	839	833	839	837	80
15°	810	808	806	812	812	228
25°	751	749	751	759	761	346
35°	665	668	674	688	690	416
45°	555	563	580	602	612	427
55°	422	439	478	510	522	376
65°	272	306	361	390	398	270
75°	120	174	200	180	174	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°	841.0	841.0	841.0	841.0	841.0
2.5°	844.9	841.0	835.1	841.0	839.0
5°	841.0	839.0	833.2	839.0	837.1
7.5°	835.1	835.1	829.2	833.2	833.2
10°	829.2	827.3	823.4	829.2	827.3
12.5°	819.4	817.5	815.5	821.4	819.4
15°	809.6	807.7	805.7	811.6	811.6
17.5°	797.9	795.9	793.9	801.8	801.8
20°	782.2	782.2	782.2	790.0	788.1
22.5°	766.5	766.5	768.5	776.3	774.3
25°	750.8	748.9	750.8	758.7	760.6
27.5°	731.2	733.2	735.1	743.0	744.9
30°	711.6	713.6	715.5	725.3	727.3
32.5°	688.1	692.0	695.9	707.7	707.7
35°	664.6	668.5	674.4	688.1	690.0
37.5°	639.1	643.0	650.8	666.5	670.4
40°	611.6	617.5	629.3	645.0	650.8
42.5°	584.2	592.0	605.8	623.4	631.2
45°	554.8	562.6	580.3	601.8	611.6
47.5°	523.4	533.2	554.8	582.2	590.1
50°	490.1	503.8	529.3	558.7	568.5
52.5°	456.8	472.4	503.8	535.2	545.0
55°	421.5	439.1	478.3	509.7	521.5
57.5°	386.2	405.8	450.9	484.2	496.0
60°	348.9	372.5	421.5	454.8	464.6
62.5°	311.7	339.1	392.1	425.4	433.2
65°	272.5	305.8	360.7	390.1	398.0
67.5°	235.2	274.5	329.3	350.9	350.9
70°	196.0	239.2	294.1	299.9	288.2
72.5°	156.8	205.8	254.8	233.3	223.5
75°	119.6	174.5	200.0	180.4	174.5
77.5°	90.2	141.1	141.1	129.4	125.5
80°	62.7	107.8	94.1	82.3	76.5
82.5°	41.2	60.8	49.0	39.2	33.3
85°	21.6	23.5	13.7	11.8	9.8
87.5°	7.8	3.9	2.0	3.9	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)