

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: P312136

Luminaire Tested: **14FCZ2-44-UNV-L83050-RDP-CP250-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: P312136
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-CP250-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.250" 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: 2475.0 lumens
Efficiency: N/A
Efficacy: 64.6 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

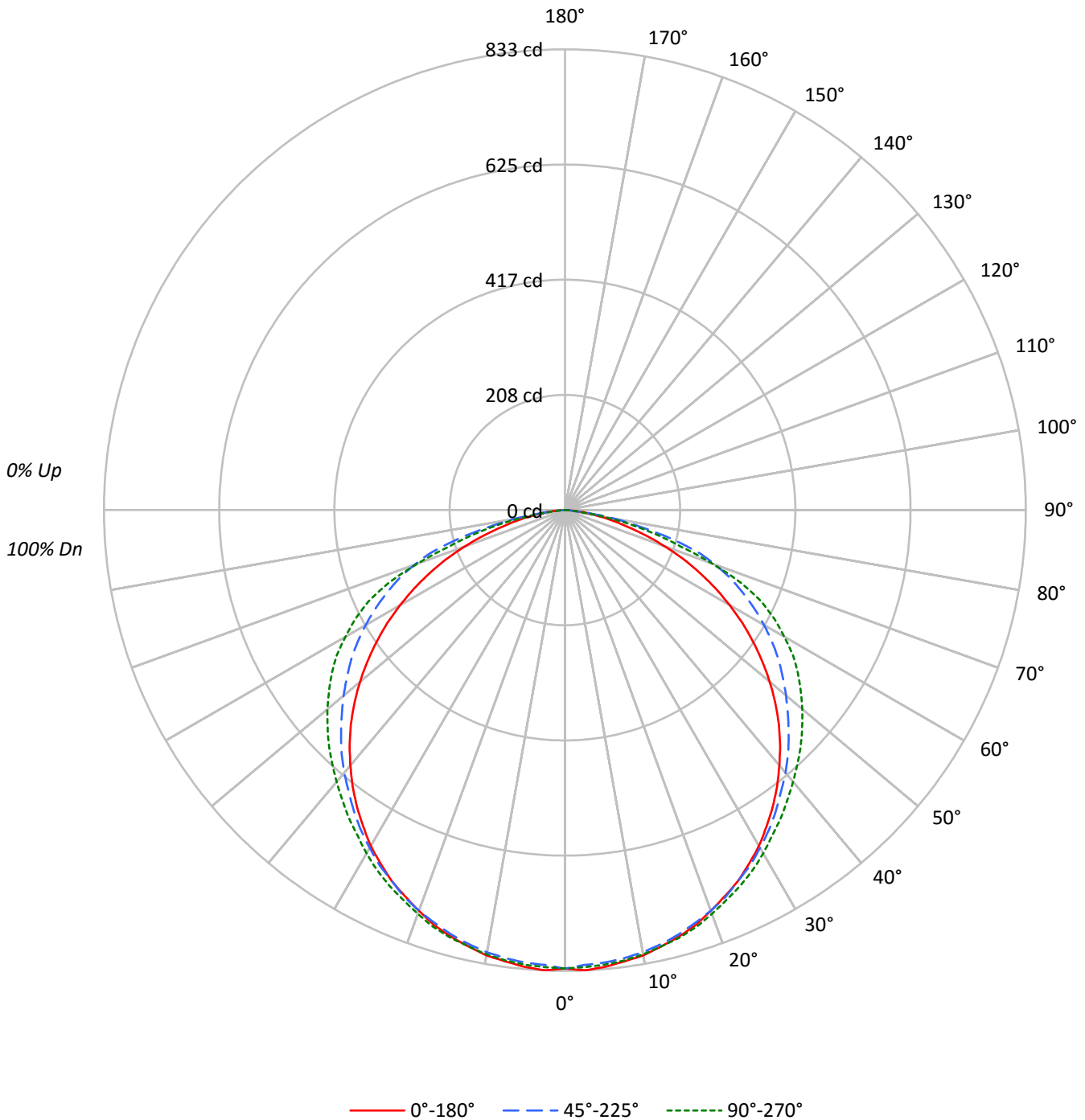
Input Watts (W): 38.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2231	2231	2231
5°	2239	2218	2229
10°	2233	2218	2228
15°	2223	2213	2229
20°	2208	2208	2225
25°	2197	2197	2226
30°	2179	2192	2228
35°	2152	2184	2235
40°	2118	2179	2253
45°	2081	2176	2294
50°	2022	2184	2346
55°	1949	2212	2411
60°	1851	2236	2464
65°	1710	2264	2497
70°	1520	2280	2234
75°	1226	2049	1788
80°	958	1437	1168
85°	658	417	299



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.5	3.2
10°-20°	225.1	9.1
20°-30°	342.8	13.8
30°-40°	417.5	16.9
40°-50°	442.9	17.9
50°-60°	418.0	16.9
60°-70°	337.5	13.6
70°-80°	183.1	7.4
80°-90°	29.6	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°	646.3	26.1
0°-40°	1063.8	43.0
0°-60°	1924.8	77.8
0°-90°	2475.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2475.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	829	829	829	829	829	
5°	829	827	821	827	825	79
15°	798	796	794	800	800	225
25°	740	738	740	748	750	341
35°	655	659	665	678	680	410
45°	547	555	572	593	603	421
55°	415	433	472	502	514	371
65°	269	301	356	384	392	266
75°	118	172	197	178	172	129
85°	21	23	14	12	10	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	828.9	828.9	828.9	828.9	828.9
2.5°	832.8	828.9	823.1	828.9	827.0
5°	828.9	827.0	821.2	827.0	825.1
7.5°	823.1	823.1	817.3	821.2	821.2
10°	817.3	815.4	811.6	817.3	815.4
12.5°	807.7	805.8	803.8	809.6	807.7
15°	798.0	796.1	794.2	800.0	800.0
17.5°	786.4	784.5	782.6	790.3	790.3
20°	771.0	771.0	771.0	778.7	776.8
22.5°	755.5	755.5	757.4	765.2	763.2
25°	740.1	738.1	740.1	747.8	749.7
27.5°	720.7	722.7	724.6	732.3	734.3
30°	701.4	703.3	705.3	714.9	716.9
32.5°	678.2	682.1	686.0	697.5	697.5
35°	655.0	658.9	664.7	678.2	680.2
37.5°	629.9	633.8	641.5	657.0	660.8
40°	602.9	608.7	620.3	635.7	641.5
42.5°	575.8	583.5	597.1	614.5	622.2
45°	546.8	554.6	571.9	593.2	602.9
47.5°	515.9	525.6	546.8	573.9	581.6
50°	483.1	496.6	521.7	550.7	560.4
52.5°	450.2	465.7	496.6	527.5	537.2
55°	415.4	432.8	471.5	502.4	514.0
57.5°	380.7	400.0	444.4	477.3	488.9
60°	343.9	367.1	415.4	448.3	457.9
62.5°	307.2	334.3	386.5	419.3	427.0
65°	268.6	301.4	355.5	384.5	392.2
67.5°	231.9	270.5	324.6	345.9	345.9
70°	193.2	235.7	289.8	295.6	284.0
72.5°	154.6	202.9	251.2	229.9	220.3
75°	117.9	172.0	197.1	177.8	172.0
77.5°	88.9	139.1	139.1	127.5	123.7
80°	61.8	106.3	92.7	81.2	75.4
82.5°	40.6	59.9	48.3	38.6	32.8
85°	21.3	23.2	13.5	11.6	9.7
87.5°	7.7	3.9	1.9	3.9	1.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)