

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: P312012

Luminaire Tested: **14FCZ2-20-UNV-L83050-RDP-CP250-W2A-U-4000K**

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: P312012  
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: 14FCZ2-20-UNV-L83050-RDP-CP250-W2A-U-4000K  
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.250" POLYCARB SHEET  
Light Source: (168) 4000K 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**

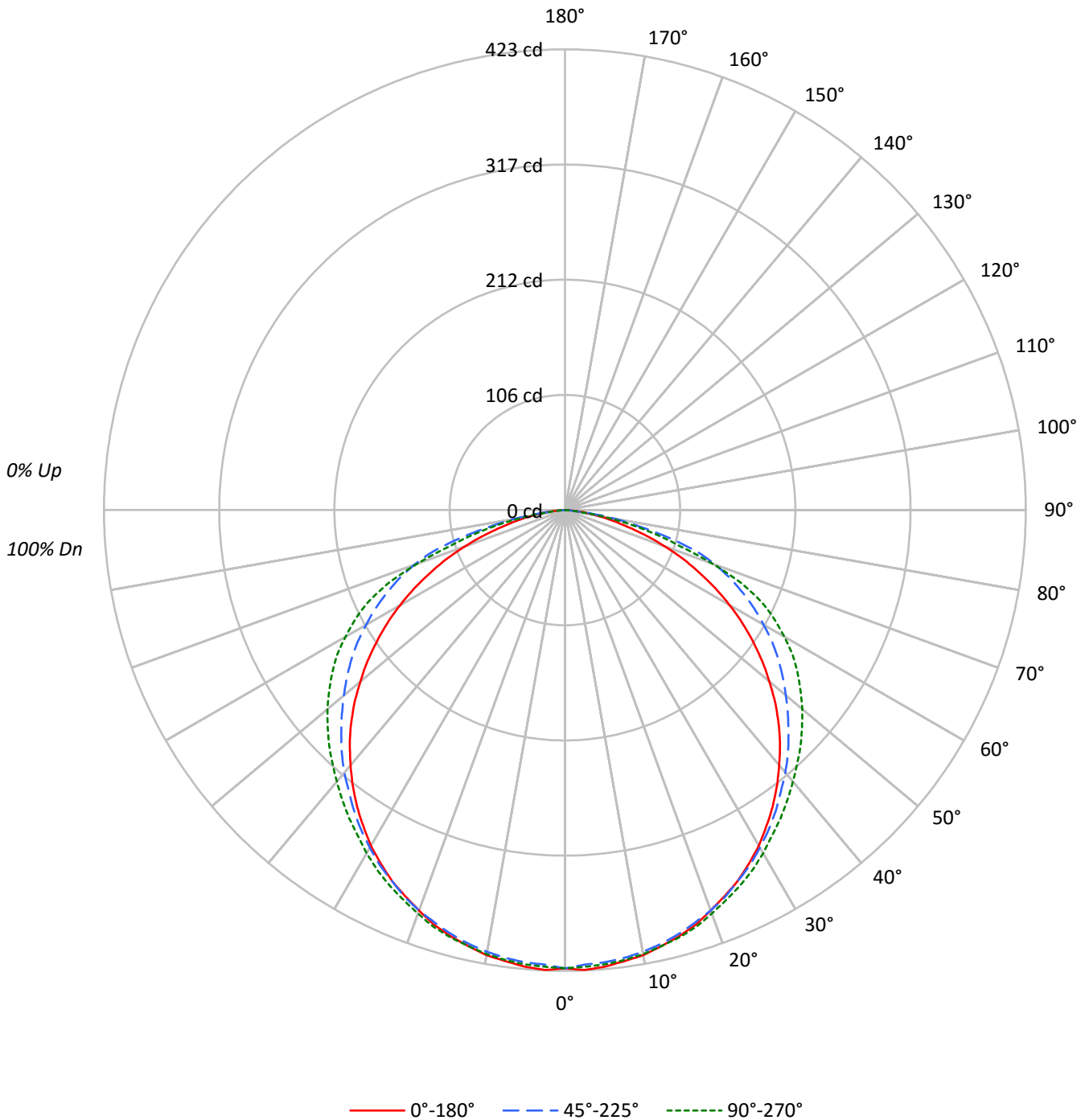
Lumens per Lamp: N/A  
Luminaire Lumens: 1256.0 lumens  
Efficiency: N/A  
Efficacy: 74.3 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.28 / 1.4  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 16.9  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	1132	1132	1132
5°	1136	1126	1131
10°	1133	1125	1131
15°	1128	1123	1131
20°	1120	1120	1129
25°	1115	1115	1130
30°	1106	1112	1130
35°	1092	1108	1134
40°	1075	1106	1144
45°	1056	1105	1164
50°	1026	1109	1191
55°	989	1123	1224
60°	939	1135	1251
65°	868	1149	1268
70°	772	1157	1134
75°	622	1040	908
80°	487	730	592
85°	333	213	151



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.8	3.2
10°-20°	114.2	9.1
20°-30°	173.9	13.8
30°-40°	211.9	16.9
40°-50°	224.8	17.9
50°-60°	212.1	16.9
60°-70°	171.3	13.6
70°-80°	92.9	7.4
80°-90°	15.0	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°	328.0	26.1
0°-40°	539.9	43.0
0°-60°	976.8	77.8
0°-90°	1256.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1256.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	421	421	421	421	421	
5°	421	420	417	420	419	40
15°	405	404	403	406	406	114
25°	376	375	376	380	380	173
35°	332	334	337	344	345	208
45°	278	281	290	301	306	214
55°	211	220	239	255	261	188
65°	136	153	180	195	199	135
75°	60	87	100	90	87	65
85°	11	12	7	6	5	14
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	420.7	420.7	420.7	420.7	420.7
2.5°	422.6	420.7	417.7	420.7	419.7
5°	420.7	419.7	416.7	419.7	418.7
7.5°	417.7	417.7	414.8	416.7	416.7
10°	414.8	413.8	411.8	414.8	413.8
12.5°	409.9	408.9	407.9	410.9	409.9
15°	405.0	404.0	403.0	406.0	406.0
17.5°	399.1	398.1	397.1	401.1	401.1
20°	391.2	391.2	391.2	395.2	394.2
22.5°	383.4	383.4	384.4	388.3	387.3
25°	375.6	374.6	375.6	379.5	380.5
27.5°	365.8	366.7	367.7	371.6	372.6
30°	355.9	356.9	357.9	362.8	363.8
32.5°	344.2	346.1	348.1	354.0	354.0
35°	332.4	334.4	337.3	344.2	345.2
37.5°	319.7	321.6	325.6	333.4	335.4
40°	305.9	308.9	314.8	322.6	325.6
42.5°	292.2	296.1	303.0	311.8	315.7
45°	277.5	281.4	290.3	301.0	305.9
47.5°	261.8	266.7	277.5	291.2	295.2
50°	245.1	252.0	264.8	279.5	284.4
52.5°	228.5	236.3	252.0	267.7	272.6
55°	210.8	219.6	239.3	254.9	260.8
57.5°	193.2	203.0	225.5	242.2	248.1
60°	174.5	186.3	210.8	227.5	232.4
62.5°	155.9	169.6	196.1	212.8	216.7
65°	136.3	153.0	180.4	195.1	199.1
67.5°	117.7	137.3	164.7	175.5	175.5
70°	98.1	119.6	147.1	150.0	144.1
72.5°	78.4	103.0	127.5	116.7	111.8
75°	59.8	87.3	100.0	90.2	87.3
77.5°	45.1	70.6	70.6	64.7	62.8
80°	31.4	53.9	47.1	41.2	38.2
82.5°	20.6	30.4	24.5	19.6	16.7
85°	10.8	11.8	6.9	5.9	4.9
87.5°	3.9	2.0	1.0	2.0	1.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)