

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: P311990

Luminaire Tested: **14FCZ2-20-UNV-L83050-RDP-CA08-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: P311990  
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-CA08-W2A-U-3000K  
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.08" 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**

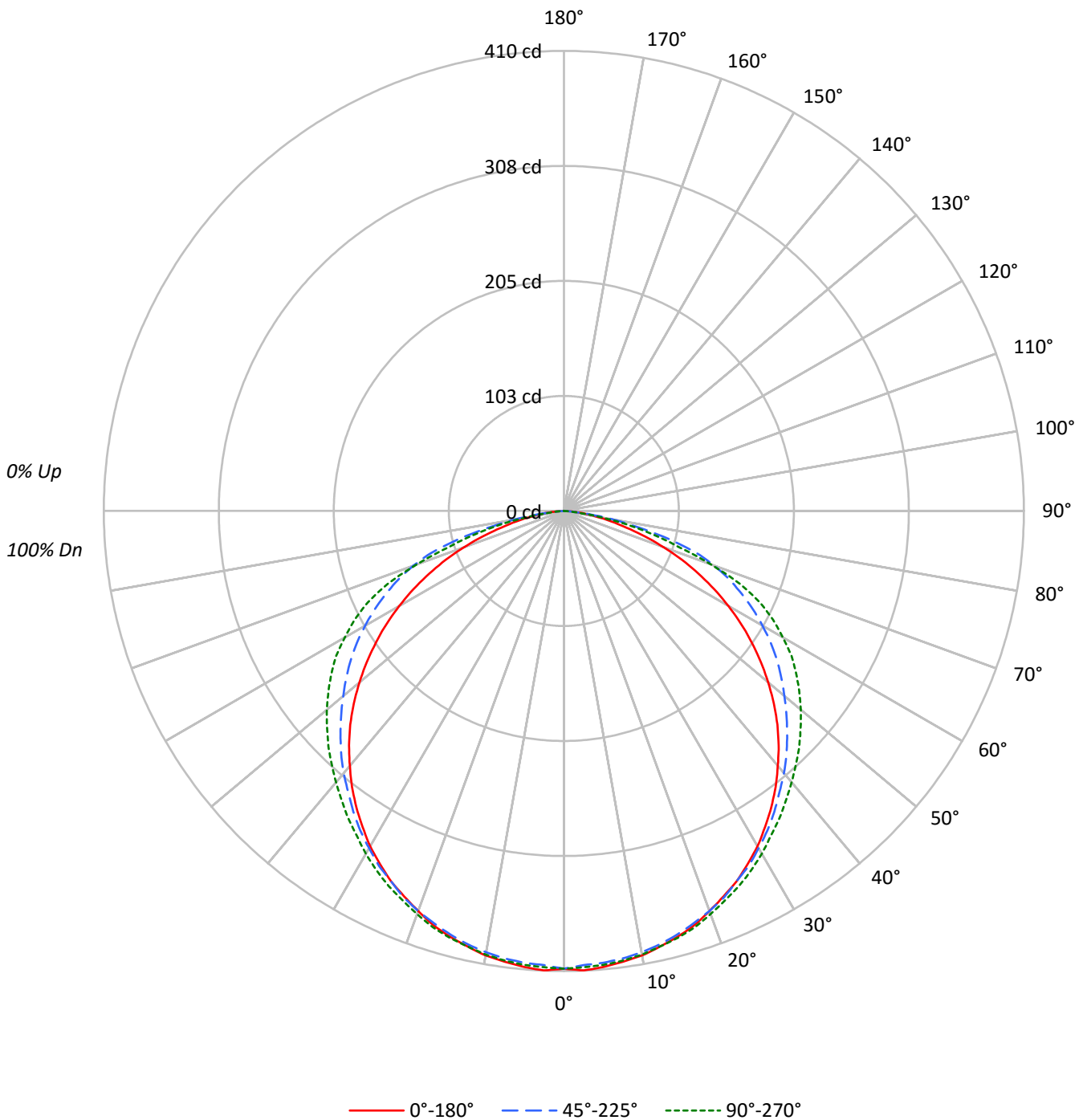
Lumens per Lamp: N/A  
Luminaire Lumens: 1218.0 lumens  
Efficiency: N/A  
Efficacy: 73.8 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.4  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 16.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
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°	1098	1098	1098
5°	1102	1092	1097
10°	1099	1091	1097
15°	1094	1089	1097
20°	1086	1086	1095
25°	1081	1081	1096
30°	1073	1079	1096
35°	1059	1075	1100
40°	1042	1072	1109
45°	1024	1071	1129
50°	995	1075	1155
55°	959	1088	1187
60°	911	1100	1213
65°	842	1114	1229
70°	748	1122	1100
75°	603	1009	880
80°	471	707	575
85°	324	207	148



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	38.6	3.2
10°-20°	110.8	9.1
20°-30°	168.7	13.8
30°-40°	205.5	16.9
40°-50°	218.0	17.9
50°-60°	205.7	16.9
60°-70°	166.1	13.6
70°-80°	90.1	7.4
80°-90°	14.6	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°	318.1	26.1
0°-40°	523.5	43.0
0°-60°	947.2	77.8
0°-90°	1218.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1218.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	408	408	408	408	408	
5°	408	407	404	407	406	39
15°	393	392	391	394	394	111
25°	364	363	364	368	369	168
35°	322	324	327	334	335	202
45°	269	273	282	292	297	207
55°	204	213	232	247	253	183
65°	132	148	175	189	193	131
75°	58	85	97	88	85	63
85°	10	11	7	6	5	13
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	407.9	407.9	407.9	407.9	407.9
2.5°	409.8	407.9	405.1	407.9	407.0
5°	407.9	407.0	404.1	407.0	406.0
7.5°	405.1	405.1	402.2	404.1	404.1
10°	402.2	401.3	399.4	402.2	401.3
12.5°	397.5	396.5	395.6	398.4	397.5
15°	392.7	391.8	390.8	393.7	393.7
17.5°	387.0	386.1	385.1	388.9	388.9
20°	379.4	379.4	379.4	383.2	382.3
22.5°	371.8	371.8	372.8	376.6	375.6
25°	364.2	363.2	364.2	368.0	369.0
27.5°	354.7	355.6	356.6	360.4	361.3
30°	345.2	346.1	347.1	351.8	352.8
32.5°	333.8	335.7	337.6	343.3	343.3
35°	322.4	324.3	327.1	333.8	334.7
37.5°	310.0	311.9	315.7	323.3	325.2
40°	296.7	299.5	305.2	312.8	315.7
42.5°	283.4	287.2	293.8	302.4	306.2
45°	269.1	272.9	281.5	291.9	296.7
47.5°	253.9	258.6	269.1	282.4	286.2
50°	237.7	244.4	256.7	271.0	275.8
52.5°	221.6	229.2	244.4	259.6	264.4
55°	204.4	213.0	232.0	247.2	252.9
57.5°	187.3	196.8	218.7	234.9	240.6
60°	169.3	180.7	204.4	220.6	225.4
62.5°	151.2	164.5	190.2	206.3	210.2
65°	132.2	148.3	175.0	189.2	193.0
67.5°	114.1	133.1	159.8	170.2	170.2
70°	95.1	116.0	142.6	145.5	139.8
72.5°	76.1	99.8	123.6	113.2	108.4
75°	58.0	84.6	97.0	87.5	84.6
77.5°	43.7	68.5	68.5	62.8	60.9
80°	30.4	52.3	45.6	39.9	37.1
82.5°	20.0	29.5	23.8	19.0	16.2
85°	10.5	11.4	6.7	5.7	4.8
87.5°	3.8	1.9	1.0	1.9	1.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)