

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: P311860

Luminaire Tested: **14FCZ2-20-UNV-L83050-HRP-CP250-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: P311860  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)  
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-HRP-CP250-W2A-U-3000K  
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.250"  
POLYCARB 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**

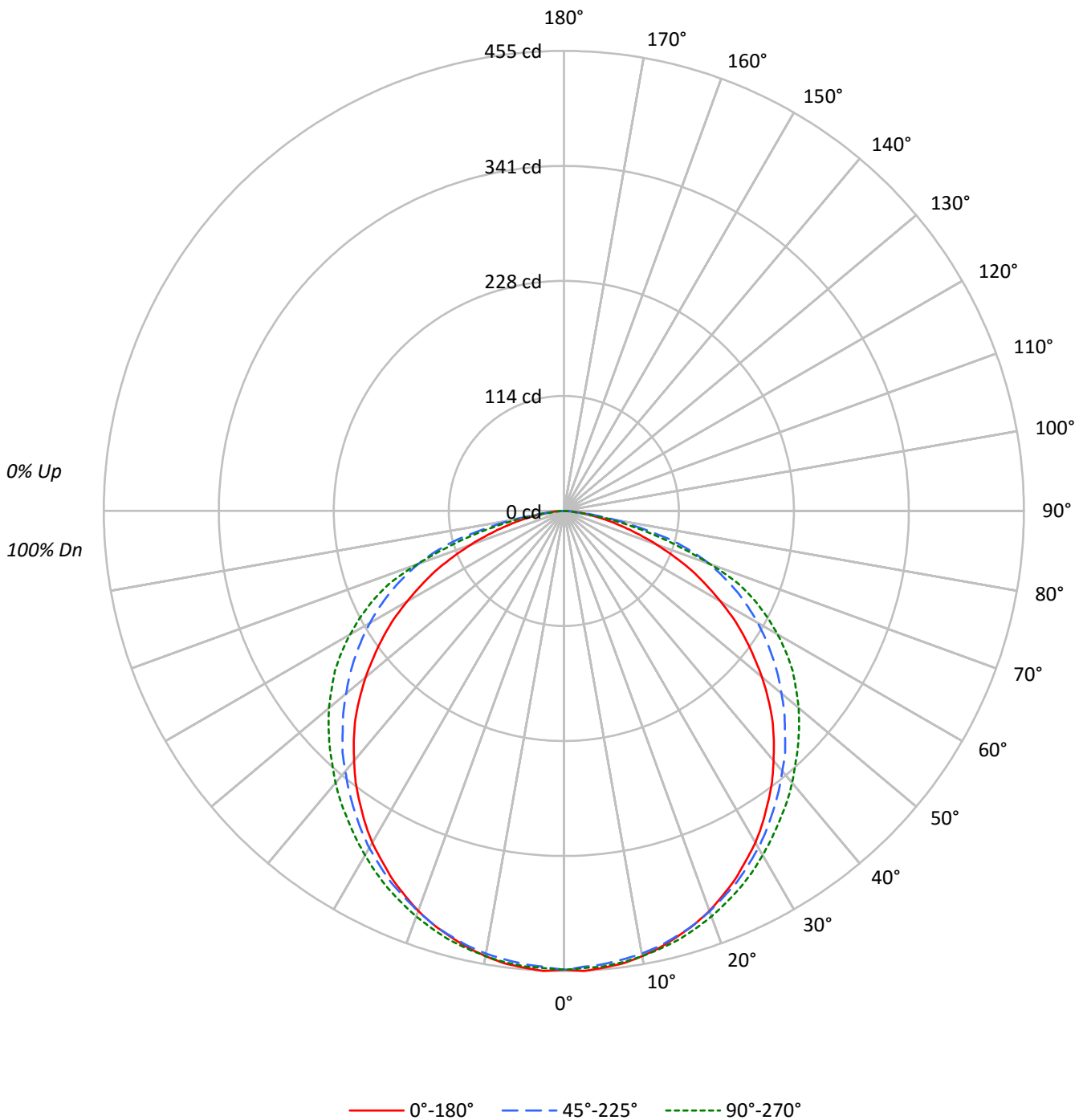
Lumens per Lamp: N/A  
Luminaire Lumens: 1336.0 lumens  
Efficiency: N/A  
Efficacy: 81.0 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 16.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
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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CATALOG NUMBER: 14FC22-20-UNV-L83050-HRP-CP250-W2A-U-3000K

**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	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	26	37	30	25	36	30	25	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1221	1221	1221
5°	1224	1215	1221
10°	1221	1215	1221
15°	1214	1211	1223
20°	1205	1207	1222
25°	1192	1203	1222
30°	1177	1196	1222
35°	1156	1187	1224
40°	1133	1181	1234
45°	1110	1177	1247
50°	1071	1176	1270
55°	1025	1183	1297
60°	963	1192	1314
65°	888	1203	1321
70°	773	1206	1216
75°	637	1123	983
80°	501	807	657
85°	389	312	154



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	43.0	3.2
10°-20°	123.2	9.2
20°-30°	187.2	14.0
30°-40°	226.8	17.0
40°-50°	239.0	17.9
50°-60°	223.1	16.7
60°-70°	178.3	13.3
70°-80°	98.1	7.3
80°-90°	17.3	1.3
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°	353.4	26.5
0°-40°	580.2	43.4
0°-60°	1042.3	78.0
0°-90°	1336.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1336.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	454	454	454	454	454	
5°	453	452	450	453	452	43
15°	436	436	435	439	439	123
25°	402	402	405	411	412	185
35°	352	355	361	370	373	220
45°	292	297	309	323	328	224
55°	218	229	252	270	276	195
65°	140	157	189	205	208	137
75°	61	88	108	97	94	66
85°	13	16	10	6	5	15
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	453.7	453.7	453.7	453.7	453.7
2.5°	455.4	454.1	451.2	453.7	452.5
5°	453.3	452.0	449.9	452.9	452.0
7.5°	451.2	449.5	447.4	450.8	449.9
10°	447.0	445.7	444.5	447.4	447.0
12.5°	441.9	441.5	440.3	443.6	443.2
15°	435.6	435.6	434.8	439.0	439.0
17.5°	428.9	428.5	428.9	433.5	433.1
20°	420.9	420.9	421.4	426.8	426.8
22.5°	411.3	411.7	413.0	419.7	419.3
25°	401.6	402.5	405.0	410.9	411.7
27.5°	389.9	392.0	394.9	402.0	402.9
30°	378.9	380.2	384.8	391.5	393.2
32.5°	365.9	368.4	373.5	381.0	383.1
35°	352.0	355.4	361.3	370.5	372.6
37.5°	338.2	341.1	349.1	358.8	362.5
40°	322.6	327.7	336.1	347.0	351.2
42.5°	307.5	312.6	323.9	335.2	339.0
45°	291.6	297.0	309.2	323.1	327.7
47.5°	273.9	280.2	295.8	310.5	315.5
50°	255.8	263.8	281.0	297.4	303.3
52.5°	236.9	247.0	266.8	284.0	289.5
55°	218.5	229.4	252.1	269.7	276.4
57.5°	199.5	211.3	236.9	257.1	260.9
60°	179.0	193.2	221.4	239.0	244.1
62.5°	158.8	175.2	205.4	222.2	226.4
65°	139.5	157.1	189.0	204.6	207.5
67.5°	118.5	139.5	171.0	185.3	186.1
70°	98.3	122.7	153.3	160.1	154.6
72.5°	78.6	104.6	132.8	127.3	122.7
75°	61.3	87.8	108.0	97.0	94.5
77.5°	45.4	71.8	77.3	71.4	66.8
80°	32.3	56.7	52.1	44.5	42.4
82.5°	22.3	35.7	28.6	22.3	19.3
85°	12.6	16.0	10.1	6.3	5.0
87.5°	5.5	3.8	2.1	1.7	1.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)