

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: P312112

Luminaire Tested: **14FCZ2-39-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: P312112  
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: 14FCZ2-39-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: 2325.0 lumens  
Efficiency: N/A  
Efficacy: 68.2 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

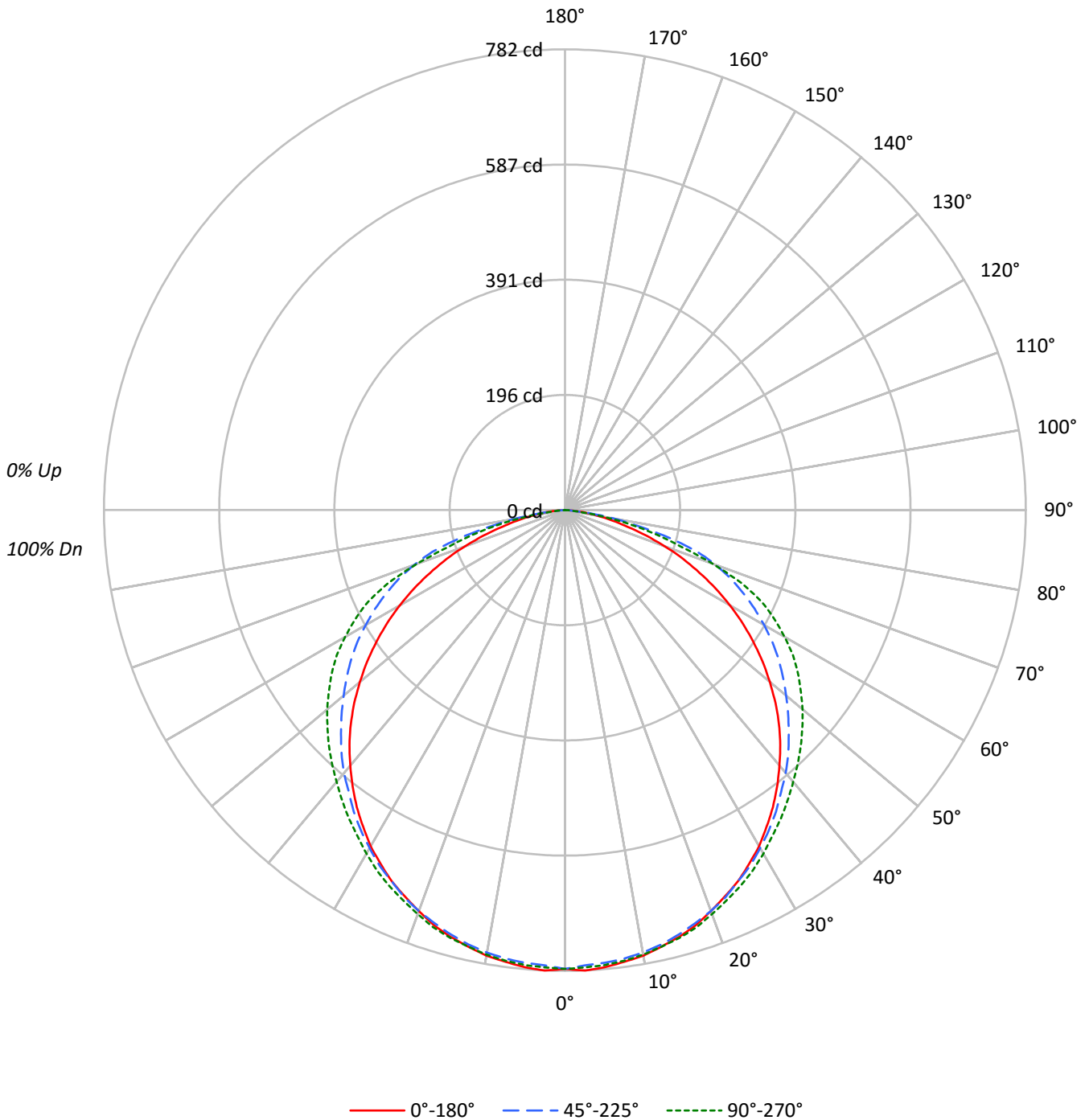
Input Watts (W): 34.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2095	2095	2095
5°	2103	2084	2094
10°	2098	2083	2093
15°	2089	2078	2094
20°	2074	2074	2090
25°	2064	2064	2091
30°	2047	2059	2092
35°	2021	2051	2099
40°	1989	2047	2117
45°	1955	2045	2155
50°	1900	2052	2204
55°	1831	2078	2265
60°	1739	2101	2315
65°	1606	2127	2346
70°	1428	2142	2099
75°	1151	1925	1679
80°	900	1350	1097
85°	618	392	281



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.7	3.2
10°-20°	211.5	9.1
20°-30°	322.0	13.8
30°-40°	392.2	16.9
40°-50°	416.1	17.9
50°-60°	392.7	16.9
60°-70°	317.1	13.6
70°-80°	172.0	7.4
80°-90°	27.8	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°	607.2	26.1
0°-40°	999.3	43.0
0°-60°	1808.1	77.8
0°-90°	2325.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2325.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	779	779	779	779	779	
5°	779	777	771	777	775	74
15°	750	748	746	752	752	212
25°	695	693	695	702	704	320
35°	615	619	624	637	639	385
45°	514	521	537	557	566	396
55°	390	407	443	472	483	349
65°	252	283	334	361	368	250
75°	111	162	185	167	162	121
85°	20	22	13	11	9	26
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	778.7	778.7	778.7	778.7	778.7
2.5°	782.3	778.7	773.3	778.7	776.9
5°	778.7	776.9	771.4	776.9	775.1
7.5°	773.3	773.3	767.8	771.4	771.4
10°	767.8	766.0	762.4	767.8	766.0
12.5°	758.7	756.9	755.1	760.6	758.7
15°	749.7	747.8	746.0	751.5	751.5
17.5°	738.8	737.0	735.1	742.4	742.4
20°	724.2	724.2	724.2	731.5	729.7
22.5°	709.7	709.7	711.5	718.8	717.0
25°	695.2	693.4	695.2	702.5	704.3
27.5°	677.1	678.9	680.7	687.9	689.8
30°	658.9	660.7	662.5	671.6	673.4
32.5°	637.1	640.8	644.4	655.3	655.3
35°	615.3	619.0	624.4	637.1	638.9
37.5°	591.7	595.4	602.6	617.2	620.8
40°	566.3	571.8	582.7	597.2	602.6
42.5°	540.9	548.2	560.9	577.2	584.5
45°	513.7	520.9	537.3	557.3	566.3
47.5°	484.6	493.7	513.7	539.1	546.4
50°	453.8	466.5	490.1	517.3	526.4
52.5°	422.9	437.5	466.5	495.5	504.6
55°	390.3	406.6	442.9	471.9	482.8
57.5°	357.6	375.7	417.5	448.3	459.2
60°	323.1	344.9	390.3	421.1	430.2
62.5°	288.6	314.0	363.0	393.9	401.1
65°	252.3	283.2	334.0	361.2	368.5
67.5°	217.8	254.1	304.9	324.9	324.9
70°	181.5	221.4	272.3	277.7	266.8
72.5°	145.2	190.6	236.0	216.0	206.9
75°	110.7	161.5	185.1	167.0	161.5
77.5°	83.5	130.7	130.7	119.8	116.2
80°	58.1	99.8	87.1	76.2	70.8
82.5°	38.1	56.3	45.4	36.3	30.9
85°	20.0	21.8	12.7	10.9	9.1
87.5°	7.3	3.6	1.8	3.6	1.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)