

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: P312096

Luminaire Tested: **14FCZ2-39-UNV-L83050-RDP-CA125-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: P312096
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-CA125-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.125" ACRYLIC 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: 2377.0 lumens
Efficiency: N/A
Efficacy: 71.4 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

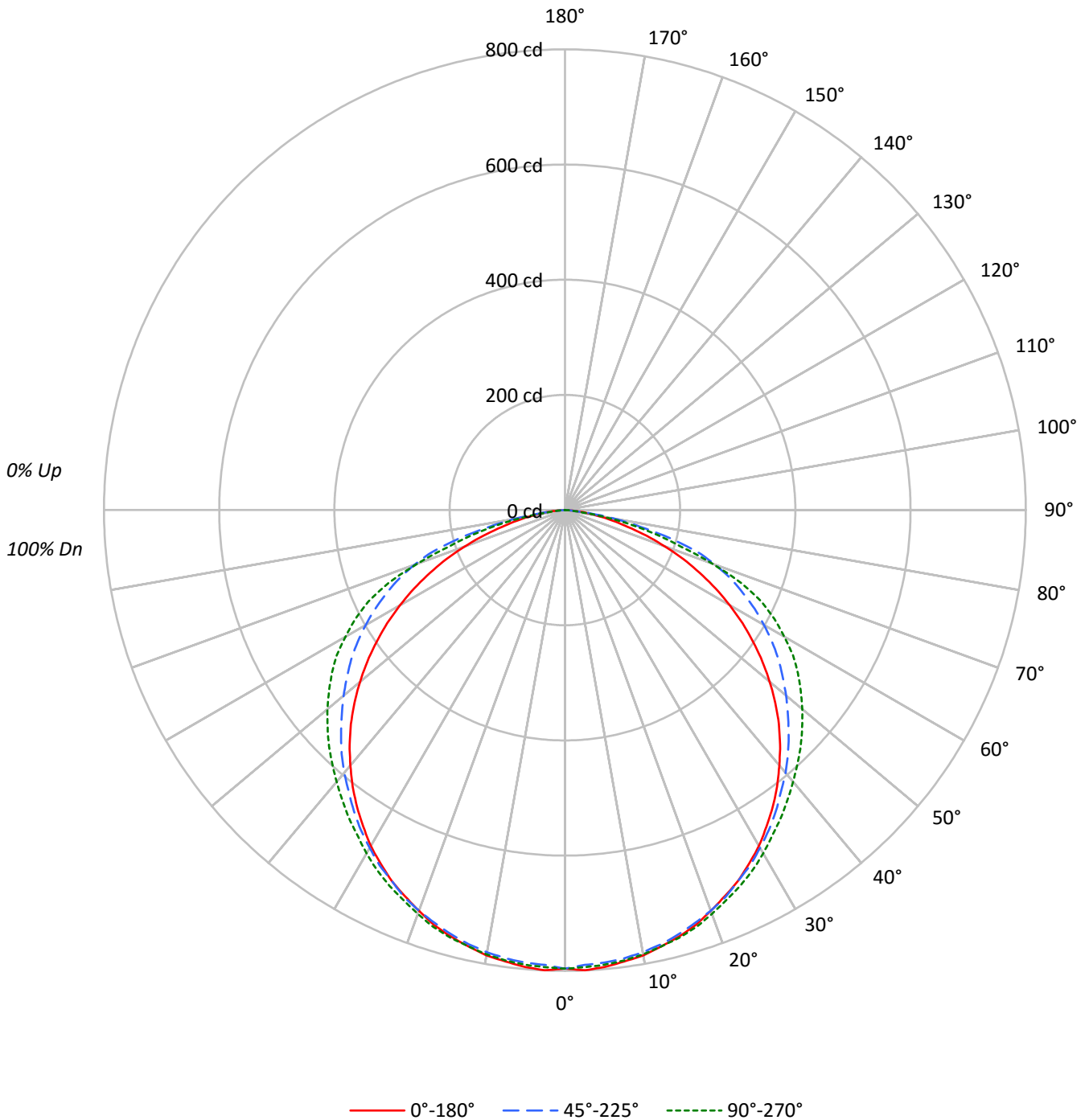
Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2142	2142	2142
5°	2150	2130	2140
10°	2145	2130	2140
15°	2135	2125	2140
20°	2120	2120	2136
25°	2110	2110	2138
30°	2093	2105	2139
35°	2067	2097	2146
40°	2034	2093	2164
45°	1999	2090	2203
50°	1942	2098	2253
55°	1872	2124	2316
60°	1778	2147	2367
65°	1642	2174	2399
70°	1460	2190	2146
75°	1177	1968	1718
80°	921	1381	1122
85°	630	401	287



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.4	3.2
10°-20°	216.2	9.1
20°-30°	329.2	13.8
30°-40°	401.0	16.9
40°-50°	425.4	17.9
50°-60°	401.5	16.9
60°-70°	324.2	13.6
70°-80°	175.8	7.4
80°-90°	28.5	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°	620.7	26.1
0°-40°	1021.7	43.0
0°-60°	1848.6	77.8
0°-90°	2377.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2377.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	796	796	796	796	796	
5°	796	794	789	794	792	76
15°	766	765	763	768	768	216
25°	711	709	711	718	720	327
35°	629	633	638	651	653	393
45°	525	533	549	570	579	404
55°	399	416	453	482	494	356
65°	258	290	342	369	377	256
75°	113	165	189	171	165	124
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°	796.1	796.1	796.1	796.1	796.1
2.5°	799.8	796.1	790.6	796.1	794.3
5°	796.1	794.3	788.7	794.3	792.4
7.5°	790.6	790.6	785.0	788.7	788.7
10°	785.0	783.1	779.4	785.0	783.1
12.5°	775.7	773.8	772.0	777.6	775.7
15°	766.4	764.6	762.7	768.3	768.3
17.5°	755.3	753.4	751.6	759.0	759.0
20°	740.4	740.4	740.4	747.9	746.0
22.5°	725.6	725.6	727.5	734.9	733.0
25°	710.8	708.9	710.8	718.2	720.0
27.5°	692.2	694.1	695.9	703.3	705.2
30°	673.6	675.5	677.3	686.6	688.5
32.5°	651.4	655.1	658.8	669.9	669.9
35°	629.1	632.8	638.4	651.4	653.2
37.5°	605.0	608.7	616.1	631.0	634.7
40°	579.0	584.6	595.7	610.5	616.1
42.5°	553.0	560.4	573.4	590.1	597.6
45°	525.2	532.6	549.3	569.7	579.0
47.5°	495.5	504.8	525.2	551.2	558.6
50°	463.9	476.9	501.1	528.9	538.2
52.5°	432.4	447.2	476.9	506.6	515.9
55°	399.0	415.7	452.8	482.5	493.6
57.5°	365.6	384.1	426.8	458.4	469.5
60°	330.3	352.6	399.0	430.5	439.8
62.5°	295.1	321.0	371.2	402.7	410.1
65°	257.9	289.5	341.5	369.3	376.7
67.5°	222.7	259.8	311.8	332.2	332.2
70°	185.6	226.4	278.4	283.9	272.8
72.5°	148.5	194.9	241.2	220.8	211.6
75°	113.2	165.2	189.3	170.7	165.2
77.5°	85.4	133.6	133.6	122.5	118.8
80°	59.4	102.1	89.1	77.9	72.4
82.5°	39.0	57.5	46.4	37.1	31.5
85°	20.4	22.3	13.0	11.1	9.3
87.5°	7.4	3.7	1.9	3.7	1.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)