

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: P312320

Luminaire Tested: **14FCZ2-25-UNV-L83050-S-CA125-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: P312320
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-25-UNV-L83050-S-CA125-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.125" 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: 2231.0 lumens
Efficiency: N/A
Efficacy: 113.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

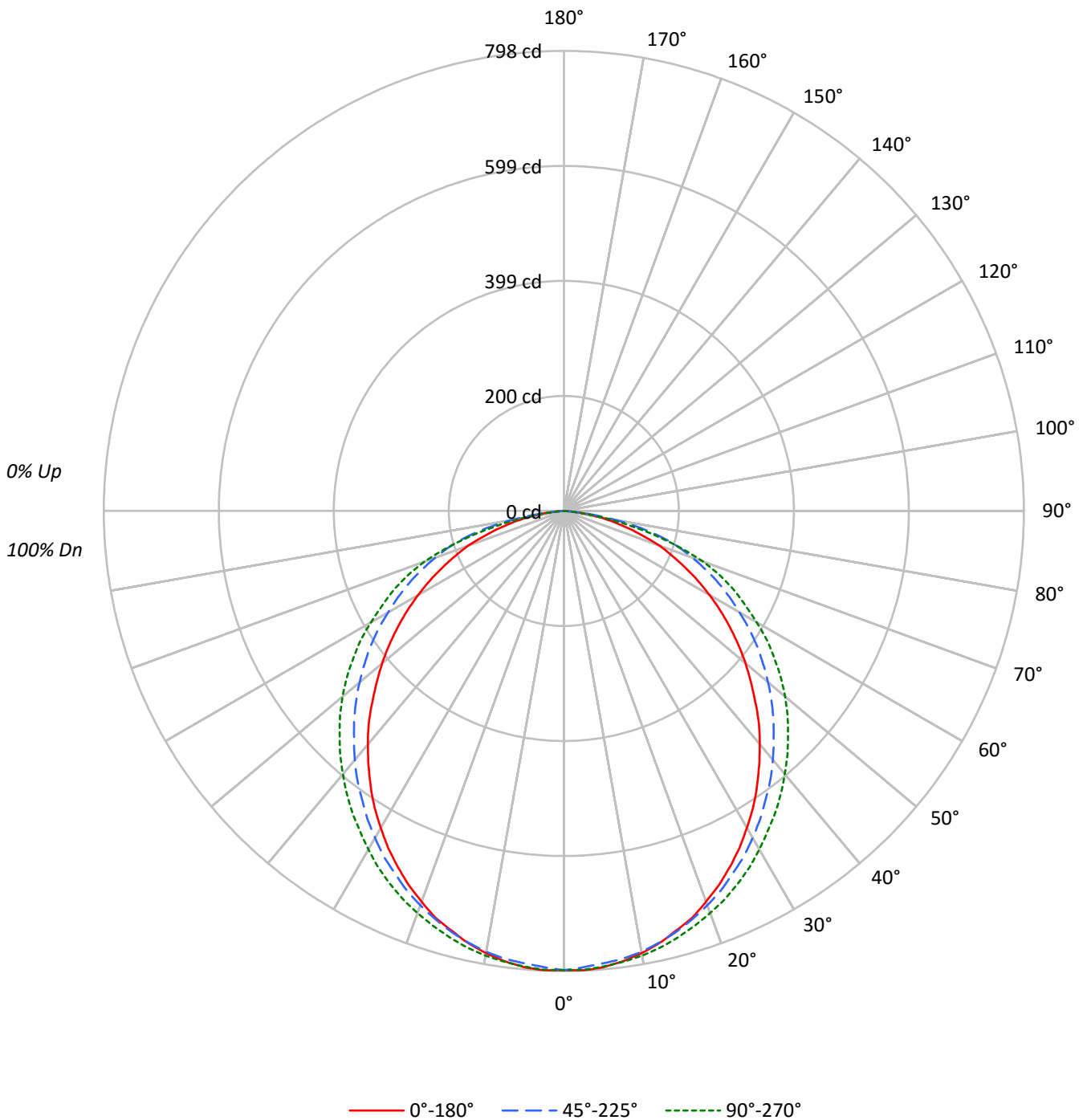
Input Watts (W): 19.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	94	91	89	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2143	2143	2143
5°	2145	2128	2142
10°	2128	2122	2140
15°	2099	2105	2133
20°	2065	2084	2125
25°	2023	2059	2119
30°	1973	2035	2107
35°	1918	2006	2100
40°	1857	1982	2094
45°	1789	1958	2092
50°	1723	1936	2098
55°	1650	1920	2092
60°	1572	1893	2077
65°	1479	1887	2078
70°	1393	1871	2019
75°	1207	1829	1725
80°	978	1474	1148
85°	648	513	343



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.2	3.4
10°-20°	214.0	9.6
20°-30°	321.0	14.4
30°-40°	382.9	17.2
40°-50°	395.9	17.7
50°-60°	361.4	16.2
60°-70°	284.4	12.7
70°-80°	165.6	7.4
80°-90°	30.5	1.4
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°	610.2	27.4
0°-40°	993.2	44.5
0°-60°	1750.5	78.5
0°-90°	2231.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2231.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	796	796	796	796	796	
5°	794	792	788	794	793	75
15°	753	754	756	766	766	213
25°	681	685	694	710	714	314
35°	584	592	611	634	639	365
45°	470	486	514	543	550	363
55°	352	371	409	439	446	315
65°	232	257	296	320	326	231
75°	116	144	176	173	166	123
85°	21	30	17	13	11	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	796.4	796.4	796.4	796.4	796.4
2.5°	797.5	795.3	792.0	797.5	796.4
5°	794.2	792.0	787.6	794.2	793.1
7.5°	787.6	785.4	783.2	789.8	788.7
10°	778.7	777.6	776.5	784.3	783.2
12.5°	767.7	767.7	766.6	775.4	775.4
15°	753.3	754.4	755.5	765.5	765.5
17.5°	740.0	738.9	742.2	753.3	754.4
20°	721.2	723.4	727.8	741.1	742.2
22.5°	702.4	704.6	712.4	725.6	729.0
25°	681.4	684.7	693.6	710.2	713.5
27.5°	659.3	663.7	675.9	693.6	696.9
30°	634.9	641.6	654.8	674.8	678.1
32.5°	610.6	617.2	633.8	653.7	658.2
35°	584.0	591.8	610.6	633.8	639.4
37.5°	556.4	566.4	588.5	611.7	618.3
40°	528.7	539.8	564.1	588.5	596.2
42.5°	501.1	512.1	538.7	566.4	574.1
45°	470.1	485.6	514.4	543.1	549.8
47.5°	440.2	456.8	488.9	517.7	526.5
50°	411.5	428.1	462.4	492.2	501.1
52.5°	381.6	399.3	435.8	466.8	474.5
55°	351.8	370.6	409.3	439.1	445.8
57.5°	321.9	341.8	381.6	410.4	418.1
60°	292.0	313.0	351.8	380.5	386.0
62.5°	262.2	284.3	324.1	349.5	355.1
65°	232.3	256.6	296.4	319.7	326.3
67.5°	203.5	227.9	266.6	288.7	294.2
70°	177.0	199.1	237.8	254.4	256.6
72.5°	143.8	171.5	209.1	217.9	212.4
75°	116.1	143.8	175.9	172.6	165.9
77.5°	88.5	116.1	137.2	126.1	117.3
80°	63.1	90.7	95.1	78.5	74.1
82.5°	40.9	63.1	53.1	40.9	33.2
85°	21.0	29.9	16.6	13.3	11.1
87.5°	6.6	4.4	2.2	2.2	1.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)