

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: P312100

Luminaire Tested: **14FCZ2-39-UNV-L83050-RDP-CP125-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: P312100
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-CP125-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.125" 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: 2203.0 lumens
Efficiency: N/A
Efficacy: 66.4 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

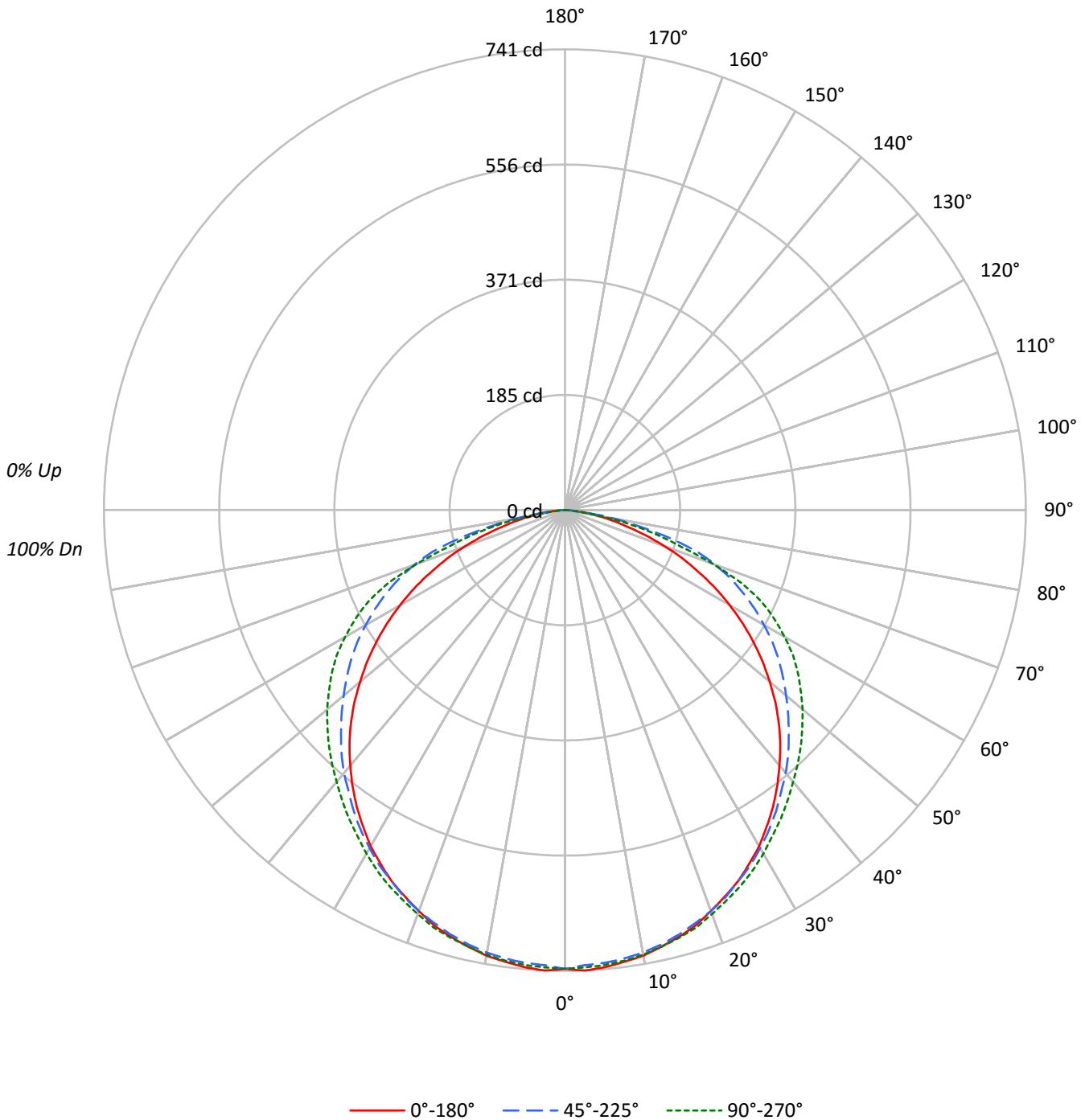
Input Watts (W): 33.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1985	1985	1985
5°	1993	1975	1984
10°	1988	1974	1983
15°	1979	1969	1984
20°	1965	1965	1980
25°	1956	1956	1981
30°	1940	1951	1983
35°	1915	1943	1989
40°	1885	1939	2006
45°	1852	1937	2042
50°	1800	1944	2088
55°	1735	1969	2146
60°	1647	1990	2194
65°	1522	2015	2223
70°	1353	2030	1989
75°	1091	1824	1592
80°	852	1280	1040
85°	584	371	266



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.8	3.2
10°-20°	200.4	9.1
20°-30°	305.1	13.8
30°-40°	371.6	16.9
40°-50°	394.2	17.9
50°-60°	372.1	16.9
60°-70°	300.4	13.6
70°-80°	163.0	7.4
80°-90°	26.4	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°	575.3	26.1
0°-40°	946.9	43.0
0°-60°	1713.2	77.8
0°-90°	2203.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2203.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	738	738	738	738	738	
5°	738	736	731	736	734	70
15°	710	709	707	712	712	200
25°	659	657	659	666	667	303
35°	583	586	592	604	605	365
45°	487	494	509	528	537	375
55°	370	385	420	447	458	330
65°	239	268	316	342	349	237
75°	105	153	175	158	153	115
85°	19	21	12	10	9	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	737.8	737.8	737.8	737.8	737.8
2.5°	741.3	737.8	732.7	737.8	736.1
5°	737.8	736.1	731.0	736.1	734.4
7.5°	732.7	732.7	727.5	731.0	731.0
10°	727.5	725.8	722.4	727.5	725.8
12.5°	718.9	717.2	715.5	720.6	718.9
15°	710.3	708.6	706.9	712.0	712.0
17.5°	700.0	698.3	696.6	703.4	703.4
20°	686.2	686.2	686.2	693.1	691.4
22.5°	672.5	672.5	674.2	681.1	679.4
25°	658.7	657.0	658.7	665.6	667.3
27.5°	641.5	643.2	645.0	651.8	653.6
30°	624.3	626.0	627.8	636.4	638.1
32.5°	603.7	607.1	610.6	620.9	620.9
35°	583.0	586.5	591.6	603.7	605.4
37.5°	560.7	564.1	571.0	584.8	588.2
40°	536.6	541.8	552.1	565.9	571.0
42.5°	512.5	519.4	531.5	546.9	553.8
45°	486.7	493.6	509.1	528.0	536.6
47.5°	459.2	467.8	486.7	510.8	517.7
50°	430.0	442.0	464.4	490.2	498.8
52.5°	400.7	414.5	442.0	469.5	478.1
55°	369.8	385.3	419.7	447.2	457.5
57.5°	338.8	356.0	395.6	424.8	435.1
60°	306.1	326.8	369.8	399.0	407.6
62.5°	273.5	297.5	344.0	373.2	380.1
65°	239.1	268.3	316.5	342.3	349.1
67.5°	206.4	240.8	288.9	307.9	307.9
70°	172.0	209.8	258.0	263.1	252.8
72.5°	137.6	180.6	223.6	204.7	196.1
75°	104.9	153.1	175.4	158.2	153.1
77.5°	79.1	123.8	123.8	113.5	110.1
80°	55.0	94.6	82.6	72.2	67.1
82.5°	36.1	53.3	43.0	34.4	29.2
85°	18.9	20.6	12.0	10.3	8.6
87.5°	6.9	3.4	1.7	3.4	1.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)