

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: P312050

Luminaire Tested: **14FCZ2-29-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: P312050
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: 14FCZ2-29-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: 1660.0 lumens
Efficiency: N/A
Efficacy: 69.7 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

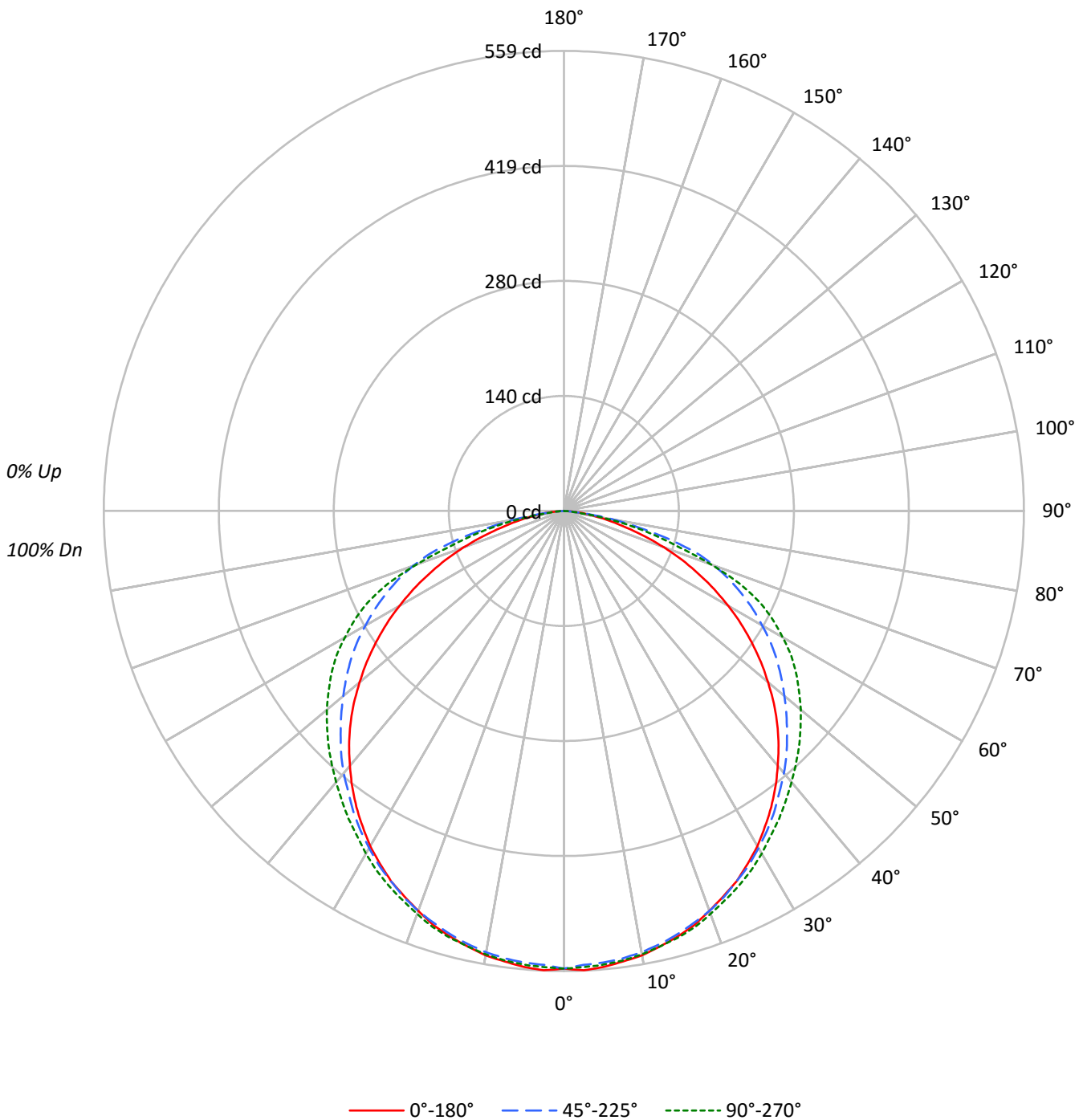
Input Watts (W): 23.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1496	1496	1496
5°	1502	1488	1495
10°	1498	1487	1494
15°	1491	1484	1495
20°	1481	1481	1492
25°	1474	1474	1493
30°	1462	1470	1494
35°	1443	1464	1499
40°	1420	1461	1512
45°	1396	1460	1539
50°	1356	1465	1573
55°	1307	1483	1617
60°	1242	1499	1653
65°	1147	1519	1675
70°	1020	1530	1499
75°	822	1375	1199
80°	643	964	783
85°	442	281	201



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.6	3.2
10°-20°	151.0	9.1
20°-30°	229.9	13.8
30°-40°	280.0	16.9
40°-50°	297.1	17.9
50°-60°	280.4	16.9
60°-70°	226.4	13.6
70°-80°	122.8	7.4
80°-90°	19.9	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°	433.5	26.1
0°-40°	713.5	43.0
0°-60°	1291.0	77.8
0°-90°	1660.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1660.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	556	556	556	556	556	
5°	556	555	551	555	553	53
15°	535	534	533	536	536	151
25°	496	495	496	502	503	229
35°	439	442	446	455	456	275
45°	367	372	384	398	404	282
55°	279	290	316	337	345	249
65°	180	202	238	258	263	178
75°	79	115	132	119	115	86
85°	14	16	9	8	6	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	556.0	556.0	556.0	556.0	556.0
2.5°	558.6	556.0	552.1	556.0	554.7
5°	556.0	554.7	550.8	554.7	553.4
7.5°	552.1	552.1	548.2	550.8	550.8
10°	548.2	546.9	544.3	548.2	546.9
12.5°	541.7	540.4	539.1	543.0	541.7
15°	535.2	533.9	532.6	536.5	536.5
17.5°	527.5	526.2	524.9	530.1	530.1
20°	517.1	517.1	517.1	522.3	521.0
22.5°	506.7	506.7	508.0	513.2	511.9
25°	496.4	495.1	496.4	501.5	502.8
27.5°	483.4	484.7	486.0	491.2	492.5
30°	470.4	471.7	473.0	479.5	480.8
32.5°	454.9	457.5	460.1	467.8	467.8
35°	439.3	441.9	445.8	454.9	456.2
37.5°	422.5	425.1	430.3	440.6	443.2
40°	404.3	408.2	416.0	426.4	430.3
42.5°	386.2	391.4	400.5	412.1	417.3
45°	366.8	371.9	383.6	397.9	404.3
47.5°	346.0	352.5	366.8	384.9	390.1
50°	324.0	333.1	349.9	369.4	375.8
52.5°	302.0	312.3	333.1	353.8	360.3
55°	278.6	290.3	316.2	337.0	344.7
57.5°	255.3	268.3	298.1	320.1	327.9
60°	230.7	246.2	278.6	300.7	307.1
62.5°	206.1	224.2	259.2	281.2	286.4
65°	180.1	202.2	238.5	257.9	263.1
67.5°	155.5	181.4	217.7	232.0	232.0
70°	129.6	158.1	194.4	198.3	190.5
72.5°	103.7	136.1	168.5	154.2	147.7
75°	79.1	115.3	132.2	119.2	115.3
77.5°	59.6	93.3	93.3	85.5	82.9
80°	41.5	71.3	62.2	54.4	50.5
82.5°	27.2	40.2	32.4	25.9	22.0
85°	14.3	15.6	9.1	7.8	6.5
87.5°	5.2	2.6	1.3	2.6	1.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)