

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: P312017

Luminaire Tested: **14FCZ2-25-UNV-L83050-RDP-CA08-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: P312017
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: 14FCZ2-25-UNV-L83050-RDP-CA08-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.08" ACRYLIC 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: 1580.0 lumens
Efficiency: N/A
Efficacy: 78.6 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

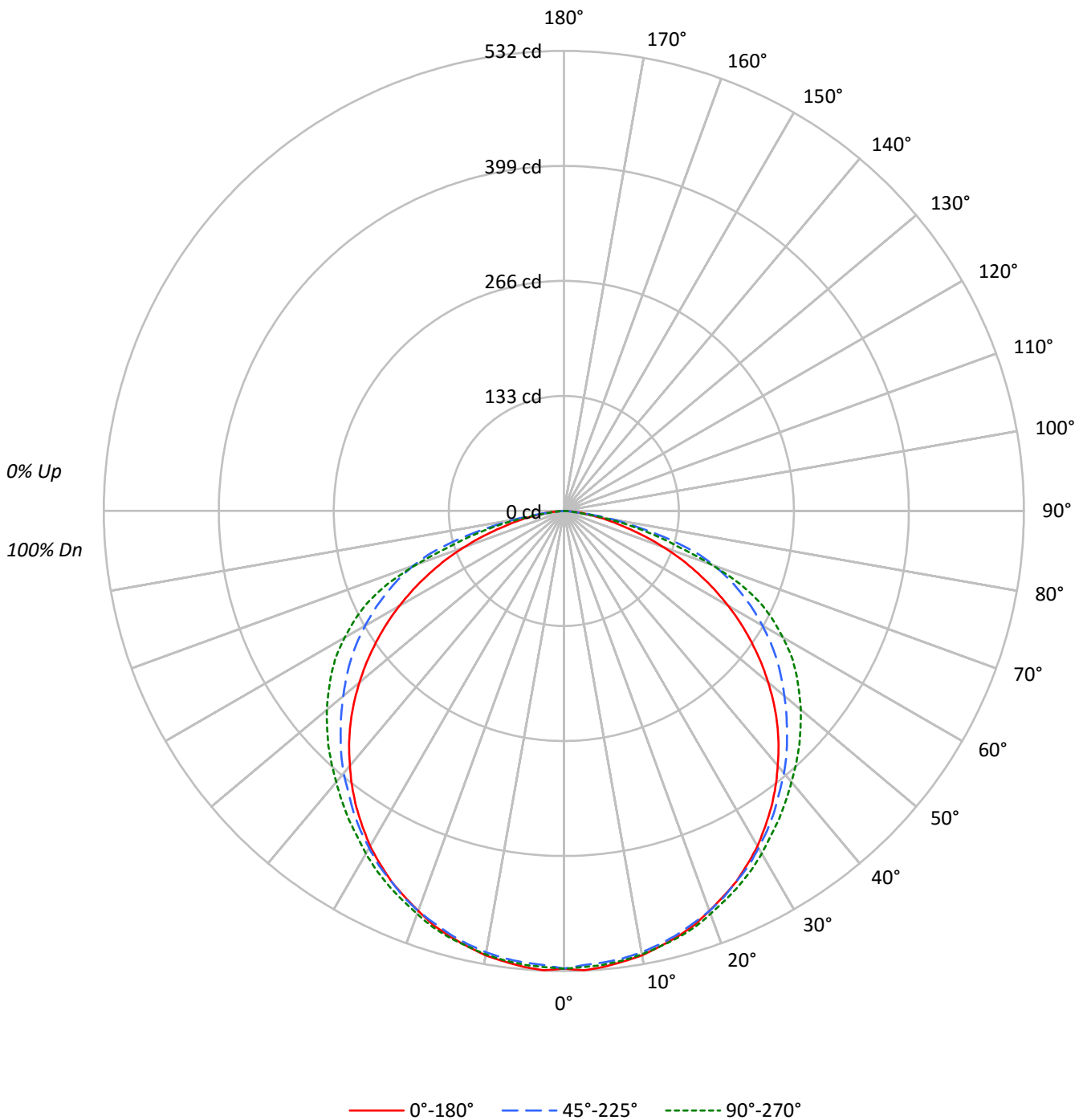
Input Watts (W): 20.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1424	1424	1424
5°	1430	1416	1423
10°	1426	1416	1422
15°	1419	1412	1423
20°	1410	1410	1420
25°	1403	1403	1421
30°	1391	1399	1422
35°	1374	1394	1426
40°	1352	1391	1439
45°	1329	1389	1465
50°	1291	1394	1497
55°	1244	1412	1539
60°	1182	1427	1573
65°	1092	1445	1594
70°	971	1456	1426
75°	782	1308	1142
80°	612	917	745
85°	420	266	191



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.1	3.2
10°-20°	143.7	9.1
20°-30°	218.8	13.8
30°-40°	266.5	16.9
40°-50°	282.8	17.9
50°-60°	266.9	16.9
60°-70°	215.5	13.6
70°-80°	116.9	7.4
80°-90°	18.9	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°	412.6	26.1
0°-40°	679.1	43.0
0°-60°	1228.7	77.8
0°-90°	1580.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1580.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	529	529	529	529	529	
5°	529	528	524	528	527	50
15°	509	508	507	511	511	144
25°	472	471	472	477	479	218
35°	418	421	424	433	434	261
45°	349	354	365	379	385	269
55°	265	276	301	321	328	237
65°	172	192	227	246	250	170
75°	75	110	126	114	110	82
85°	14	15	9	7	6	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	529.2	529.2	529.2	529.2	529.2
2.5°	531.6	529.2	525.5	529.2	527.9
5°	529.2	527.9	524.2	527.9	526.7
7.5°	525.5	525.5	521.8	524.2	524.2
10°	521.8	520.5	518.1	521.8	520.5
12.5°	515.6	514.4	513.1	516.8	515.6
15°	509.4	508.2	507.0	510.7	510.7
17.5°	502.0	500.8	499.6	504.5	504.5
20°	492.2	492.2	492.2	497.1	495.9
22.5°	482.3	482.3	483.5	488.5	487.2
25°	472.4	471.2	472.4	477.4	478.6
27.5°	460.1	461.3	462.6	467.5	468.7
30°	447.8	449.0	450.2	456.4	457.6
32.5°	433.0	435.4	437.9	445.3	445.3
35°	418.2	420.6	424.3	433.0	434.2
37.5°	402.1	404.6	409.5	419.4	421.9
40°	384.9	388.6	396.0	405.8	409.5
42.5°	367.6	372.5	381.2	392.3	397.2
45°	349.1	354.0	365.1	378.7	384.9
47.5°	329.4	335.5	349.1	366.4	371.3
50°	308.4	317.0	333.1	351.6	357.7
52.5°	287.4	297.3	317.0	336.8	342.9
55°	265.2	276.3	301.0	320.7	328.1
57.5°	243.0	255.3	283.7	304.7	312.1
60°	219.6	234.4	265.2	286.2	292.3
62.5°	196.1	213.4	246.7	267.7	272.6
65°	171.5	192.4	227.0	245.5	250.4
67.5°	148.0	172.7	207.2	220.8	220.8
70°	123.4	150.5	185.0	188.7	181.3
72.5°	98.7	129.5	160.4	146.8	140.6
75°	75.2	109.8	125.8	113.5	109.8
77.5°	56.7	88.8	88.8	81.4	78.9
80°	39.5	67.8	59.2	51.8	48.1
82.5°	25.9	38.2	30.8	24.7	21.0
85°	13.6	14.8	8.6	7.4	6.2
87.5°	4.9	2.5	1.2	2.5	1.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)