

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: P312026

Luminaire Tested: **14FCZ2-25-UNV-L83050-RDP-CP125-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: P312026
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-CP125-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.125" POLYCARB 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: 1470.0 lumens
Efficiency: N/A
Efficacy: 75.0 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

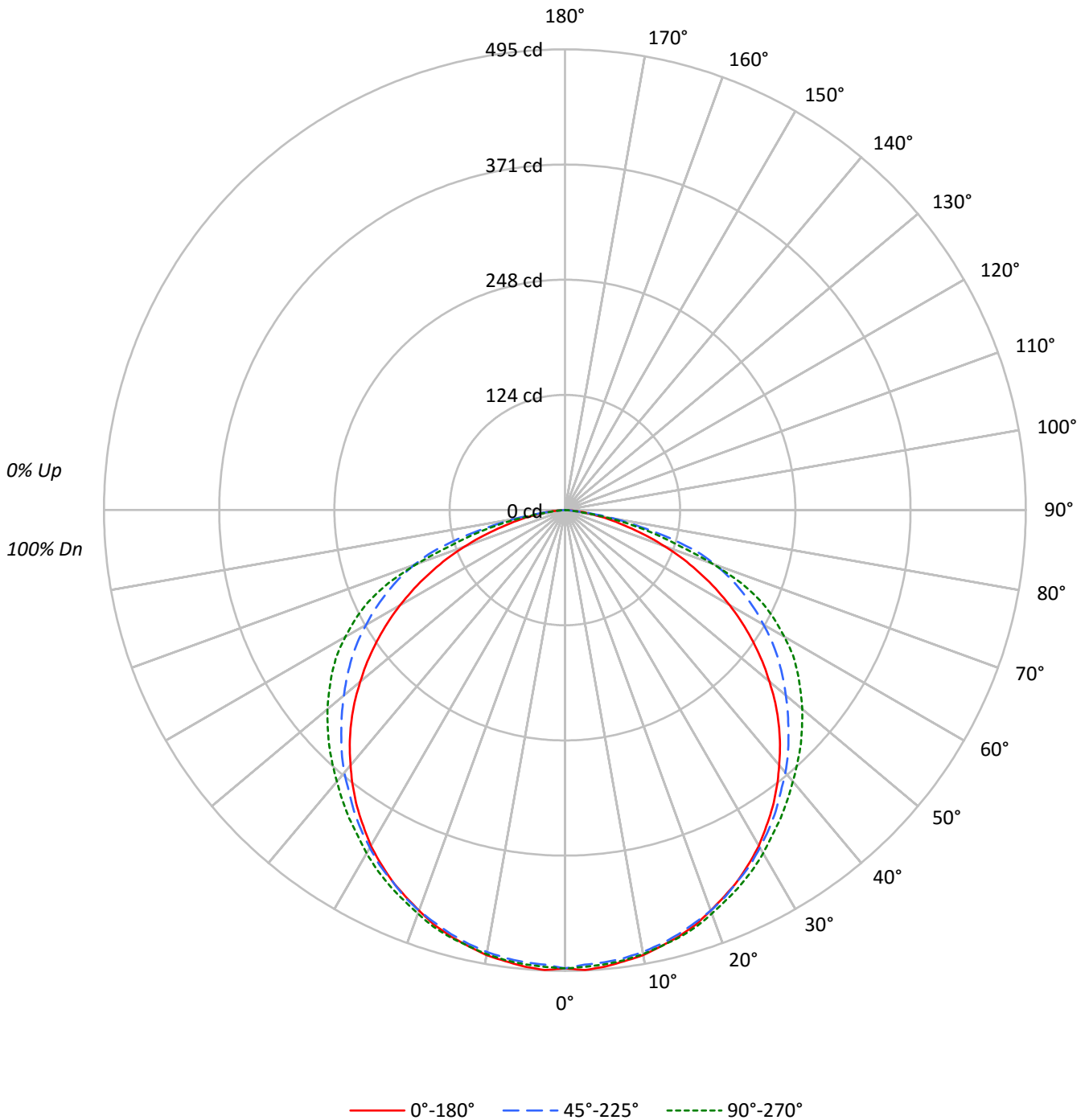
Input Watts (W): 19.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1325	1325	1325
5°	1330	1317	1324
10°	1327	1317	1323
15°	1321	1314	1324
20°	1311	1311	1321
25°	1305	1305	1322
30°	1294	1302	1323
35°	1278	1297	1327
40°	1258	1294	1338
45°	1236	1293	1363
50°	1201	1297	1393
55°	1157	1314	1432
60°	1100	1328	1464
65°	1016	1345	1484
70°	903	1354	1327
75°	728	1218	1062
80°	569	854	694
85°	389	247	176



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.6	3.2
10°-20°	133.7	9.1
20°-30°	203.6	13.8
30°-40°	248.0	16.9
40°-50°	263.1	17.9
50°-60°	248.3	16.9
60°-70°	200.5	13.6
70°-80°	108.7	7.4
80°-90°	17.6	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°	383.9	26.1
0°-40°	631.8	43.0
0°-60°	1143.2	77.8
0°-90°	1470.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1470.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	492	492	492	492	492	
5°	492	491	488	491	490	47
15°	474	473	472	475	475	134
25°	440	438	440	444	445	202
35°	389	391	395	403	404	243
45°	325	329	340	352	358	250
55°	247	257	280	298	305	220
65°	160	179	211	228	233	158
75°	70	102	117	106	102	76
85°	13	14	8	7	6	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	492.3	492.3	492.3	492.3	492.3
2.5°	494.6	492.3	488.9	492.3	491.2
5°	492.3	491.2	487.7	491.2	490.0
7.5°	488.9	488.9	485.5	487.7	487.7
10°	485.5	484.3	482.0	485.5	484.3
12.5°	479.7	478.6	477.4	480.9	479.7
15°	474.0	472.8	471.7	475.1	475.1
17.5°	467.1	465.9	464.8	469.4	469.4
20°	457.9	457.9	457.9	462.5	461.4
22.5°	448.7	448.7	449.9	454.5	453.3
25°	439.5	438.4	439.5	444.1	445.3
27.5°	428.1	429.2	430.4	435.0	436.1
30°	416.6	417.7	418.9	424.6	425.8
32.5°	402.8	405.1	407.4	414.3	414.3
35°	389.1	391.3	394.8	402.8	404.0
37.5°	374.1	376.4	381.0	390.2	392.5
40°	358.1	361.5	368.4	377.6	381.0
42.5°	342.0	346.6	354.6	365.0	369.5
45°	324.8	329.4	339.7	352.3	358.1
47.5°	306.4	312.2	324.8	340.9	345.4
50°	286.9	294.9	309.9	327.1	332.8
52.5°	267.4	276.6	294.9	313.3	319.0
55°	246.7	257.1	280.0	298.4	305.3
57.5°	226.1	237.6	264.0	283.5	290.4
60°	204.3	218.1	246.7	266.3	272.0
62.5°	182.5	198.5	229.5	249.0	253.6
65°	159.5	179.0	211.2	228.4	233.0
67.5°	137.7	160.7	192.8	205.4	205.4
70°	114.8	140.0	172.1	175.6	168.7
72.5°	91.8	120.5	149.2	136.6	130.8
75°	70.0	102.1	117.1	105.6	102.1
77.5°	52.8	82.6	82.6	75.7	73.4
80°	36.7	63.1	55.1	48.2	44.8
82.5°	24.1	35.6	28.7	23.0	19.5
85°	12.6	13.8	8.0	6.9	5.7
87.5°	4.6	2.3	1.1	2.3	1.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)