

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: P312020

Luminaire Tested: **14FCZ2-25-UNV-L83050-RDP-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: P312020
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-CA125-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 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: 1417.0 lumens
Efficiency: N/A
Efficacy: 72.3 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

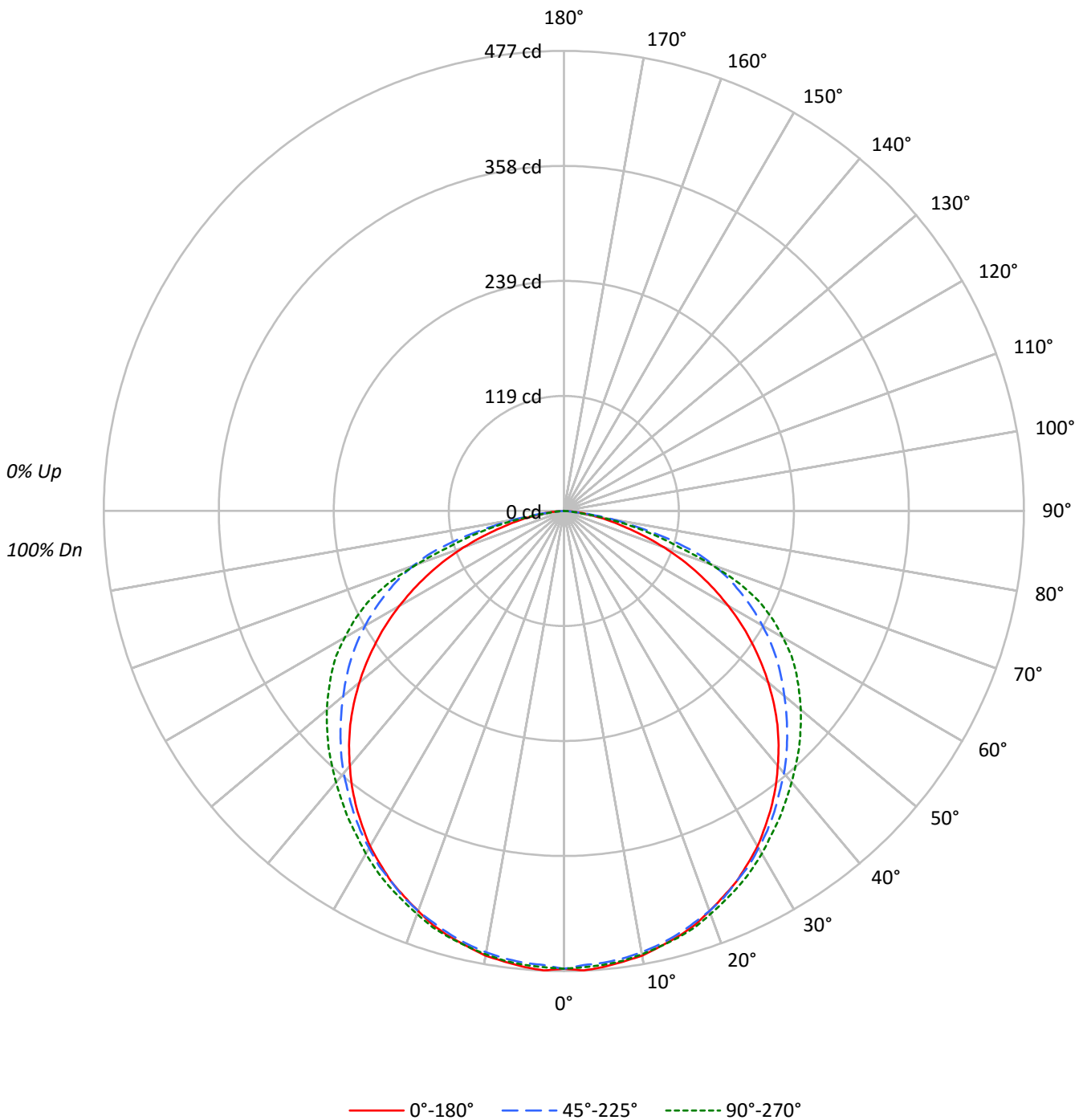
Input Watts (W): 19.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1277	1277	1277
5°	1282	1270	1276
10°	1279	1270	1276
15°	1273	1267	1276
20°	1264	1264	1273
25°	1258	1258	1274
30°	1248	1255	1275
35°	1232	1250	1279
40°	1213	1247	1290
45°	1192	1246	1314
50°	1158	1250	1343
55°	1116	1266	1381
60°	1060	1280	1411
65°	979	1296	1430
70°	870	1305	1279
75°	702	1173	1024
80°	549	823	668
85°	377	238	170



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.9	3.2
10°-20°	128.9	9.1
20°-30°	196.2	13.8
30°-40°	239.0	16.9
40°-50°	253.6	17.9
50°-60°	239.3	16.9
60°-70°	193.3	13.6
70°-80°	104.8	7.4
80°-90°	17.0	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°	370.0	26.1
0°-40°	609.1	43.0
0°-60°	1102.0	77.8
0°-90°	1417.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1417.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	475	475	475	475	475	
5°	475	474	470	474	472	45
15°	457	456	455	458	458	129
25°	424	423	424	428	429	195
35°	375	377	381	388	389	234
45°	313	318	328	340	345	241
55°	238	248	270	288	294	212
65°	154	173	204	220	225	152
75°	68	98	113	102	98	74
85°	12	13	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°	474.6	474.6	474.6	474.6	474.6
2.5°	476.8	474.6	471.3	474.6	473.5
5°	474.6	473.5	470.2	473.5	472.4
7.5°	471.3	471.3	468.0	470.2	470.2
10°	468.0	466.8	464.6	468.0	466.8
12.5°	462.4	461.3	460.2	463.5	462.4
15°	456.9	455.8	454.7	458.0	458.0
17.5°	450.3	449.1	448.0	452.5	452.5
20°	441.4	441.4	441.4	445.8	444.7
22.5°	432.6	432.6	433.7	438.1	437.0
25°	423.7	422.6	423.7	428.1	429.2
27.5°	412.6	413.7	414.9	419.3	420.4
30°	401.6	402.7	403.8	409.3	410.4
32.5°	388.3	390.5	392.7	399.4	399.4
35°	375.0	377.2	380.6	388.3	389.4
37.5°	360.6	362.9	367.3	376.1	378.3
40°	345.2	348.5	355.1	364.0	367.3
42.5°	329.7	334.1	341.8	351.8	356.2
45°	313.1	317.5	327.5	339.6	345.2
47.5°	295.4	300.9	313.1	328.6	333.0
50°	276.6	284.3	298.7	315.3	320.8
52.5°	257.8	266.6	284.3	302.0	307.5
55°	237.8	247.8	269.9	287.6	294.3
57.5°	217.9	229.0	254.4	273.2	279.9
60°	196.9	210.2	237.8	256.7	262.2
62.5°	175.9	191.4	221.3	240.1	244.5
65°	153.8	172.6	203.6	220.1	224.6
67.5°	132.8	154.9	185.9	198.0	198.0
70°	110.6	135.0	165.9	169.3	162.6
72.5°	88.5	116.2	143.8	131.6	126.1
75°	67.5	98.5	112.8	101.8	98.5
77.5°	50.9	79.7	79.7	73.0	70.8
80°	35.4	60.8	53.1	46.5	43.1
82.5°	23.2	34.3	27.7	22.1	18.8
85°	12.2	13.3	7.7	6.6	5.5
87.5°	4.4	2.2	1.1	2.2	1.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)