

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: P312021

Luminaire Tested: **14FCZ2-25-UNV-L83050-RDP-CA125-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: P312021
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-3500K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.125" ACRYLIC 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: 1499.0 lumens
Efficiency: N/A
Efficacy: 76.5 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

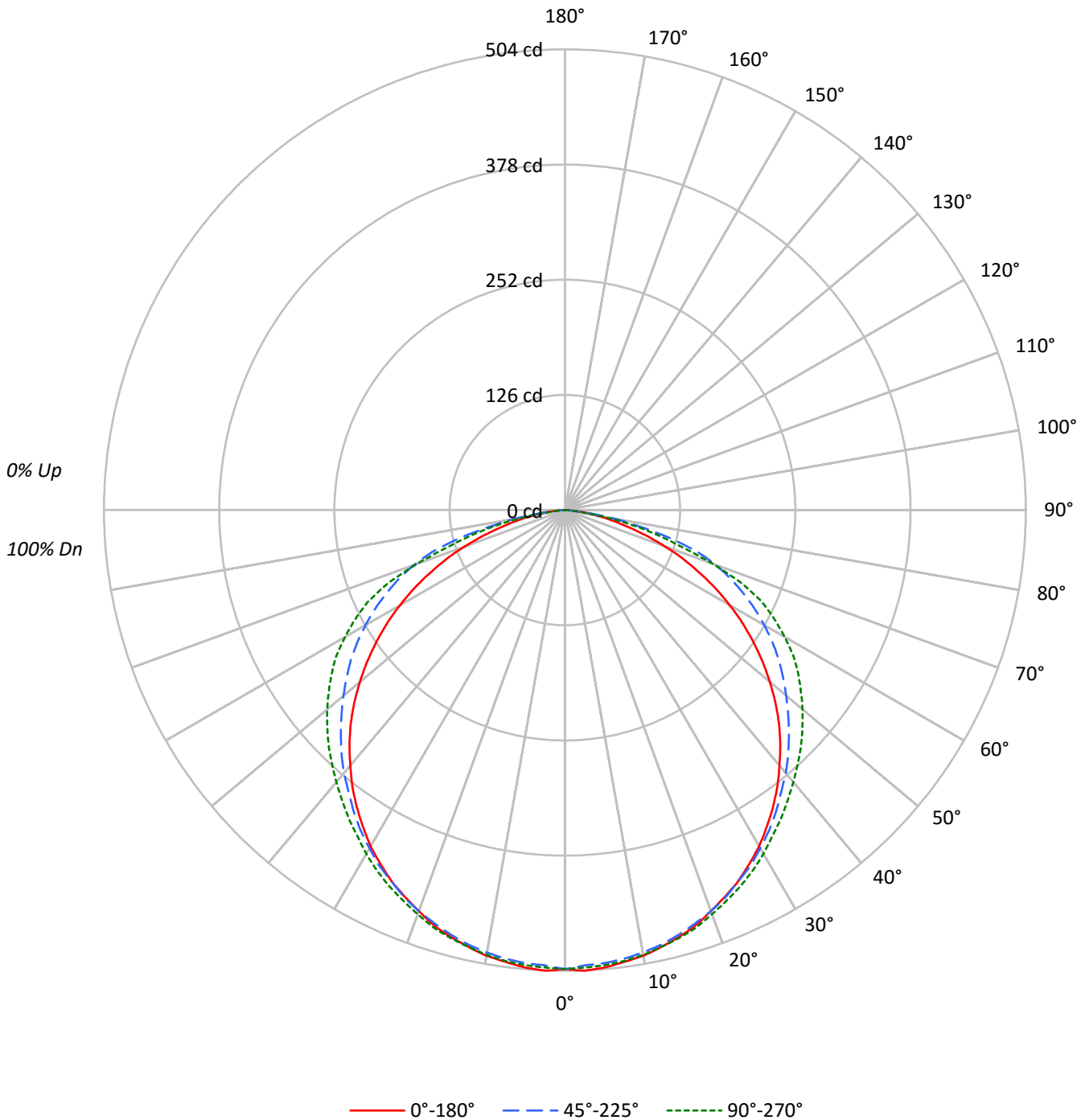
Input Watts (W): 19.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1351	1351	1351
5°	1356	1344	1350
10°	1353	1343	1350
15°	1346	1340	1350
20°	1337	1337	1347
25°	1331	1331	1348
30°	1320	1327	1349
35°	1303	1323	1353
40°	1283	1320	1365
45°	1260	1318	1389
50°	1225	1323	1421
55°	1180	1340	1460
60°	1121	1354	1493
65°	1036	1371	1513
70°	921	1381	1353
75°	742	1241	1083
80°	580	871	707
85°	398	253	182



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.5	3.2
10°-20°	136.3	9.1
20°-30°	207.6	13.8
30°-40°	252.9	16.9
40°-50°	268.3	17.9
50°-60°	253.2	16.9
60°-70°	204.4	13.6
70°-80°	110.9	7.4
80°-90°	17.9	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°	391.5	26.1
0°-40°	644.3	43.0
0°-60°	1165.8	77.8
0°-90°	1499.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1499.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	502	502	502	502	502	
5°	502	501	497	501	500	48
15°	483	482	481	484	484	136
25°	448	447	448	453	454	206
35°	397	399	403	411	412	248
45°	331	336	346	359	365	255
55°	252	262	286	304	311	225
65°	163	183	215	233	238	161
75°	71	104	119	108	104	78
85°	13	14	8	7	6	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	502.1	502.1	502.1	502.1	502.1
2.5°	504.4	502.1	498.5	502.1	500.9
5°	502.1	500.9	497.4	500.9	499.7
7.5°	498.5	498.5	495.0	497.4	497.4
10°	495.0	493.9	491.5	495.0	493.9
12.5°	489.2	488.0	486.8	490.4	489.2
15°	483.3	482.2	481.0	484.5	484.5
17.5°	476.3	475.1	474.0	478.6	478.6
20°	466.9	466.9	466.9	471.6	470.5
22.5°	457.6	457.6	458.8	463.4	462.3
25°	448.2	447.0	448.2	452.9	454.1
27.5°	436.5	437.7	438.9	443.5	444.7
30°	424.8	426.0	427.2	433.0	434.2
32.5°	410.8	413.1	415.5	422.5	422.5
35°	396.7	399.1	402.6	410.8	411.9
37.5°	381.5	383.9	388.5	397.9	400.2
40°	365.1	368.6	375.7	385.0	388.5
42.5°	348.7	353.4	361.6	372.2	376.8
45°	331.2	335.9	346.4	359.3	365.1
47.5°	312.5	318.3	331.2	347.6	352.3
50°	292.6	300.8	316.0	333.5	339.4
52.5°	272.7	282.0	300.8	319.5	325.3
55°	251.6	262.1	285.6	304.3	311.3
57.5°	230.5	242.2	269.2	289.1	296.1
60°	208.3	222.4	251.6	271.5	277.4
62.5°	186.1	202.5	234.1	254.0	258.6
65°	162.7	182.6	215.3	232.9	237.6
67.5°	140.4	163.8	196.6	209.5	209.5
70°	117.0	142.8	175.5	179.1	172.0
72.5°	93.6	122.9	152.1	139.3	133.4
75°	71.4	104.2	119.4	107.7	104.2
77.5°	53.8	84.3	84.3	77.2	74.9
80°	37.4	64.4	56.2	49.2	45.6
82.5°	24.6	36.3	29.3	23.4	19.9
85°	12.9	14.0	8.2	7.0	5.9
87.5°	4.7	2.3	1.2	2.3	1.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)