

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: P312037

Luminaire Tested: **14FCZ2-25-UNV-L83050-RDP-CP250-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: P312037
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-CP250-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.250" POLYCARB 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: 1466.0 lumens
Efficiency: N/A
Efficacy: 72.9 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

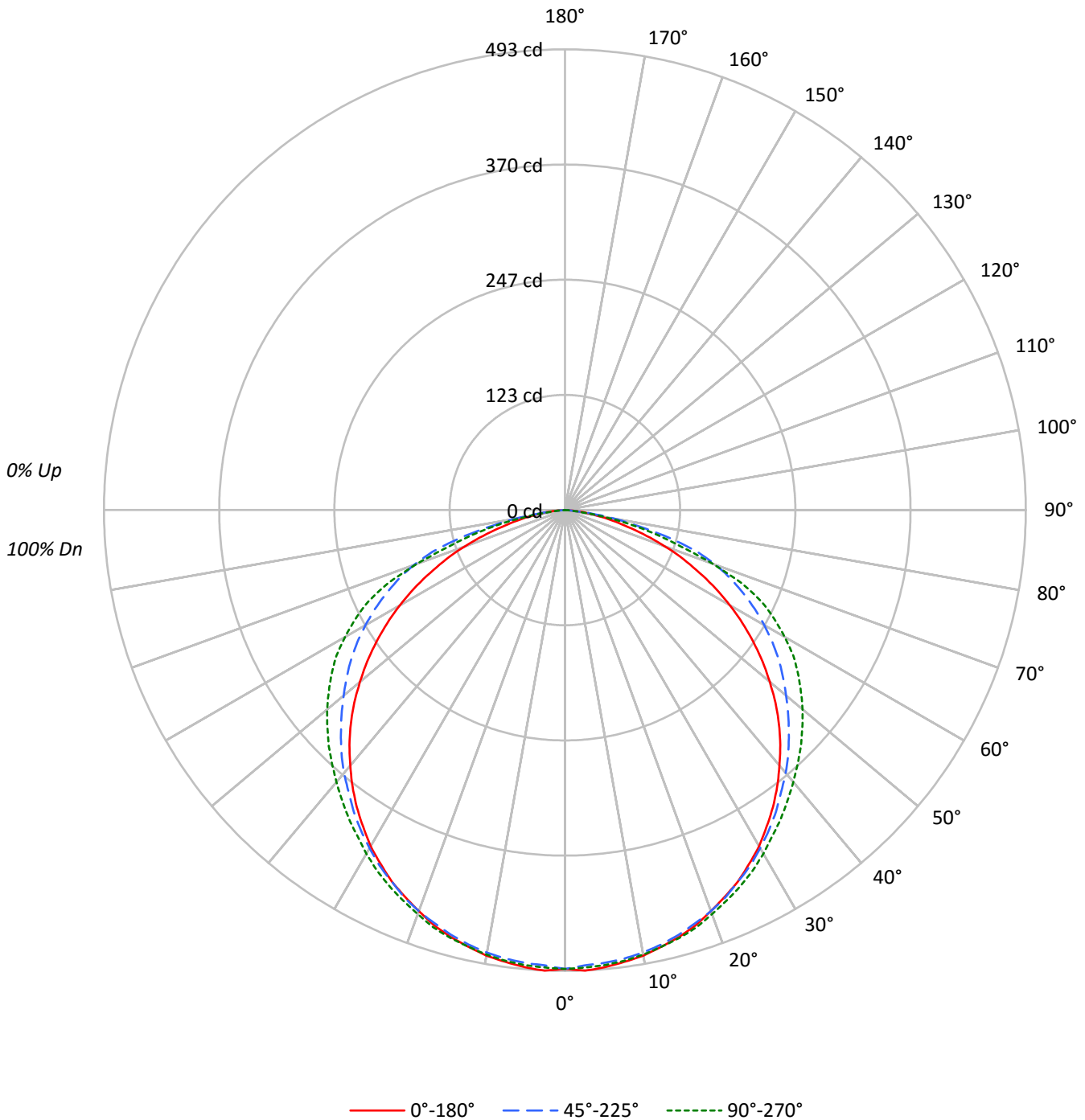
Input Watts (W): 20.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1321	1321	1321
5°	1326	1314	1320
10°	1323	1314	1320
15°	1317	1310	1320
20°	1308	1308	1318
25°	1302	1302	1319
30°	1291	1298	1319
35°	1275	1293	1324
40°	1254	1291	1335
45°	1233	1289	1359
50°	1198	1294	1389
55°	1155	1310	1428
60°	1096	1324	1460
65°	1013	1341	1479
70°	901	1351	1323
75°	726	1213	1059
80°	567	851	691
85°	389	247	176



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.5	3.2
10°-20°	133.3	9.1
20°-30°	203.0	13.8
30°-40°	247.3	16.9
40°-50°	262.4	17.9
50°-60°	247.6	16.9
60°-70°	199.9	13.6
70°-80°	108.4	7.4
80°-90°	17.5	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°	382.8	26.1
0°-40°	630.1	43.0
0°-60°	1140.1	77.8
0°-90°	1466.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1466.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	491	491	491	491	491	
5°	491	490	486	490	489	47
15°	473	472	470	474	474	133
25°	438	437	438	443	444	202
35°	388	390	394	402	403	243
45°	324	328	339	351	357	249
55°	246	256	279	298	304	220
65°	159	178	211	228	232	158
75°	70	102	117	105	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°	491.0	491.0	491.0	491.0	491.0
2.5°	493.3	491.0	487.6	491.0	489.9
5°	491.0	489.9	486.4	489.9	488.7
7.5°	487.6	487.6	484.1	486.4	486.4
10°	484.1	483.0	480.7	484.1	483.0
12.5°	478.4	477.3	476.1	479.6	478.4
15°	472.7	471.5	470.4	473.8	473.8
17.5°	465.8	464.7	463.5	468.1	468.1
20°	456.7	456.7	456.7	461.2	460.1
22.5°	447.5	447.5	448.7	453.2	452.1
25°	438.4	437.2	438.4	442.9	444.1
27.5°	426.9	428.1	429.2	433.8	434.9
30°	415.5	416.6	417.8	423.5	424.6
32.5°	401.7	404.0	406.3	413.2	413.2
35°	388.0	390.3	393.7	401.7	402.9
37.5°	373.1	375.4	380.0	389.1	391.4
40°	357.1	360.5	367.4	376.5	380.0
42.5°	341.1	345.6	353.7	364.0	368.5
45°	323.9	328.5	338.8	351.4	357.1
47.5°	305.6	311.3	323.9	339.9	344.5
50°	286.1	294.1	309.0	326.2	331.9
52.5°	266.7	275.8	294.1	312.5	318.2
55°	246.1	256.4	279.3	297.6	304.4
57.5°	225.5	236.9	263.2	282.7	289.6
60°	203.7	217.5	246.1	265.5	271.3
62.5°	182.0	198.0	228.9	248.4	252.9
65°	159.1	178.5	210.6	227.8	232.3
67.5°	137.3	160.2	192.3	204.9	204.9
70°	114.5	139.6	171.7	175.1	168.2
72.5°	91.6	120.2	148.8	136.2	130.5
75°	69.8	101.9	116.7	105.3	101.9
77.5°	52.6	82.4	82.4	75.5	73.2
80°	36.6	62.9	54.9	48.1	44.6
82.5°	24.0	35.5	28.6	22.9	19.5
85°	12.6	13.7	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)