

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: P312060

Luminaire Tested: **14FCZ2-29-UNV-L83050-RDP-CP250-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: P312060
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: 14FCZ2-29-UNV-L83050-RDP-CP250-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.250" POLYCARB 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: 1577.0 lumens
Efficiency: N/A
Efficacy: 66.3 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

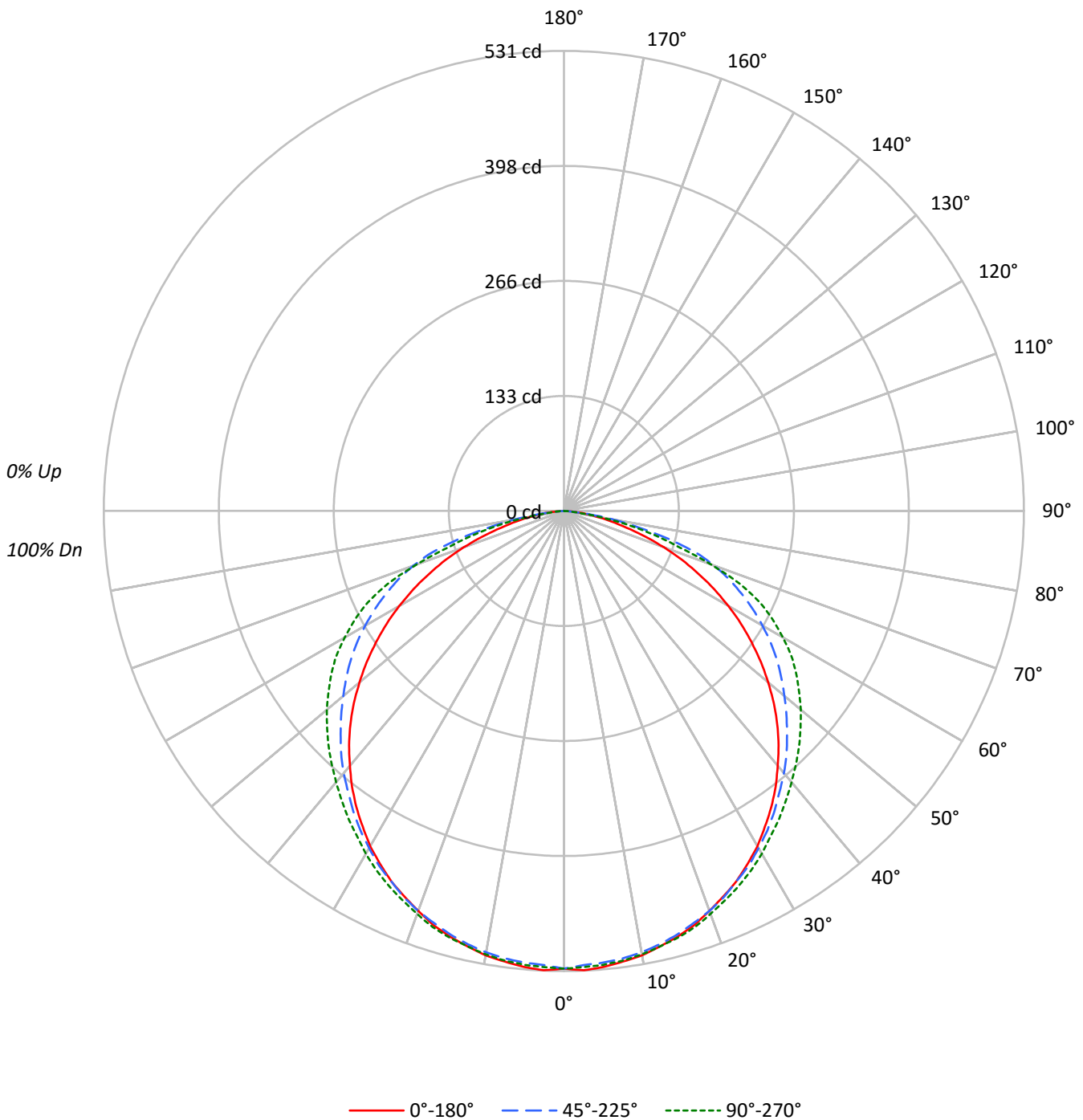
Input Watts (W): 23.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P312060

CATALOG NUMBER: 14FCZ2-29-UNV-L83050-RDP-CP250-W2A-U-3000K

Luminous Intensity Polar Plot





TEST NUMBER: P312060

CATALOG NUMBER: 14FCZ2-29-UNV-L83050-RDP-CP250-W2A-U-3000K

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°	1421	1421	1421
5°	1427	1414	1420
10°	1423	1413	1420
15°	1417	1410	1420
20°	1407	1407	1417
25°	1400	1400	1418
30°	1389	1396	1419
35°	1371	1391	1424
40°	1349	1388	1436
45°	1326	1387	1462
50°	1289	1392	1495
55°	1242	1409	1536
60°	1180	1425	1570
65°	1089	1442	1591
70°	969	1453	1424
75°	781	1306	1140
80°	611	916	744
85°	417	266	191



TEST NUMBER: P312060

CATALOG NUMBER: 14FCZ2-29-UNV-L83050-RDP-CP250-W2A-U-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.0	3.2
10°-20°	143.4	9.1
20°-30°	218.4	13.8
30°-40°	266.0	16.9
40°-50°	282.2	17.9
50°-60°	266.4	16.9
60°-70°	215.1	13.6
70°-80°	116.7	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°	411.8	26.1
0°-40°	677.8	43.0
0°-60°	1226.4	77.8
0°-90°	1577.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1577.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	528	528	528	528	528	
5°	528	527	523	527	526	50
15°	508	507	506	510	510	143
25°	472	470	472	476	478	217
35°	417	420	424	432	433	261
45°	348	353	364	378	384	268
55°	265	276	300	320	328	236
65°	171	192	226	245	250	170
75°	75	110	126	113	110	82
85°	14	15	9	7	6	17
90°	0	0	0	0	0	



TEST NUMBER: P312060

CATALOG NUMBER: 14FC22-29-UNV-L83050-RDP-CP250-W2A-U-3000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	528.2	528.2	528.2	528.2	528.2
2.5°	530.6	528.2	524.5	528.2	526.9
5°	528.2	526.9	523.3	526.9	525.7
7.5°	524.5	524.5	520.8	523.3	523.3
10°	520.8	519.6	517.1	520.8	519.6
12.5°	514.6	513.4	512.2	515.9	514.6
15°	508.5	507.2	506.0	509.7	509.7
17.5°	501.1	499.9	498.6	503.6	503.6
20°	491.2	491.2	491.2	496.2	494.9
22.5°	481.4	481.4	482.6	487.5	486.3
25°	471.5	470.3	471.5	476.5	477.7
27.5°	459.2	460.5	461.7	466.6	467.8
30°	446.9	448.2	449.4	455.5	456.8
32.5°	432.1	434.6	437.1	444.5	444.5
35°	417.4	419.8	423.5	432.1	433.4
37.5°	401.4	403.8	408.8	418.6	421.1
40°	384.1	387.8	395.2	405.1	408.8
42.5°	366.9	371.8	380.4	391.5	396.4
45°	348.4	353.3	364.4	378.0	384.1
47.5°	328.7	334.9	348.4	365.7	370.6
50°	307.8	316.4	332.4	350.9	357.0
52.5°	286.9	296.7	316.4	336.1	342.3
55°	264.7	275.8	300.4	320.1	327.5
57.5°	242.5	254.9	283.2	304.1	311.5
60°	219.2	233.9	264.7	285.6	291.8
62.5°	195.8	213.0	246.2	267.2	272.1
65°	171.1	192.1	226.5	245.0	249.9
67.5°	147.7	172.4	206.8	220.4	220.4
70°	123.1	150.2	184.7	188.4	181.0
72.5°	98.5	129.3	160.1	146.5	140.4
75°	75.1	109.6	125.6	113.3	109.6
77.5°	56.6	88.6	88.6	81.3	78.8
80°	39.4	67.7	59.1	51.7	48.0
82.5°	25.9	38.2	30.8	24.6	20.9
85°	13.5	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)