

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: P307376

Luminaire Tested: **14FCZ2-29-UNV-L82765-RDP-CP250-W2A-U-2700K**

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: P307376
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-L82765-RDP-CP250-W2A-U-2700K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.250" POLYCARB SHEET
Light Source: (168) 2700K 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: 1531.0 lumens
Efficiency: N/A
Efficacy: 64.3 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

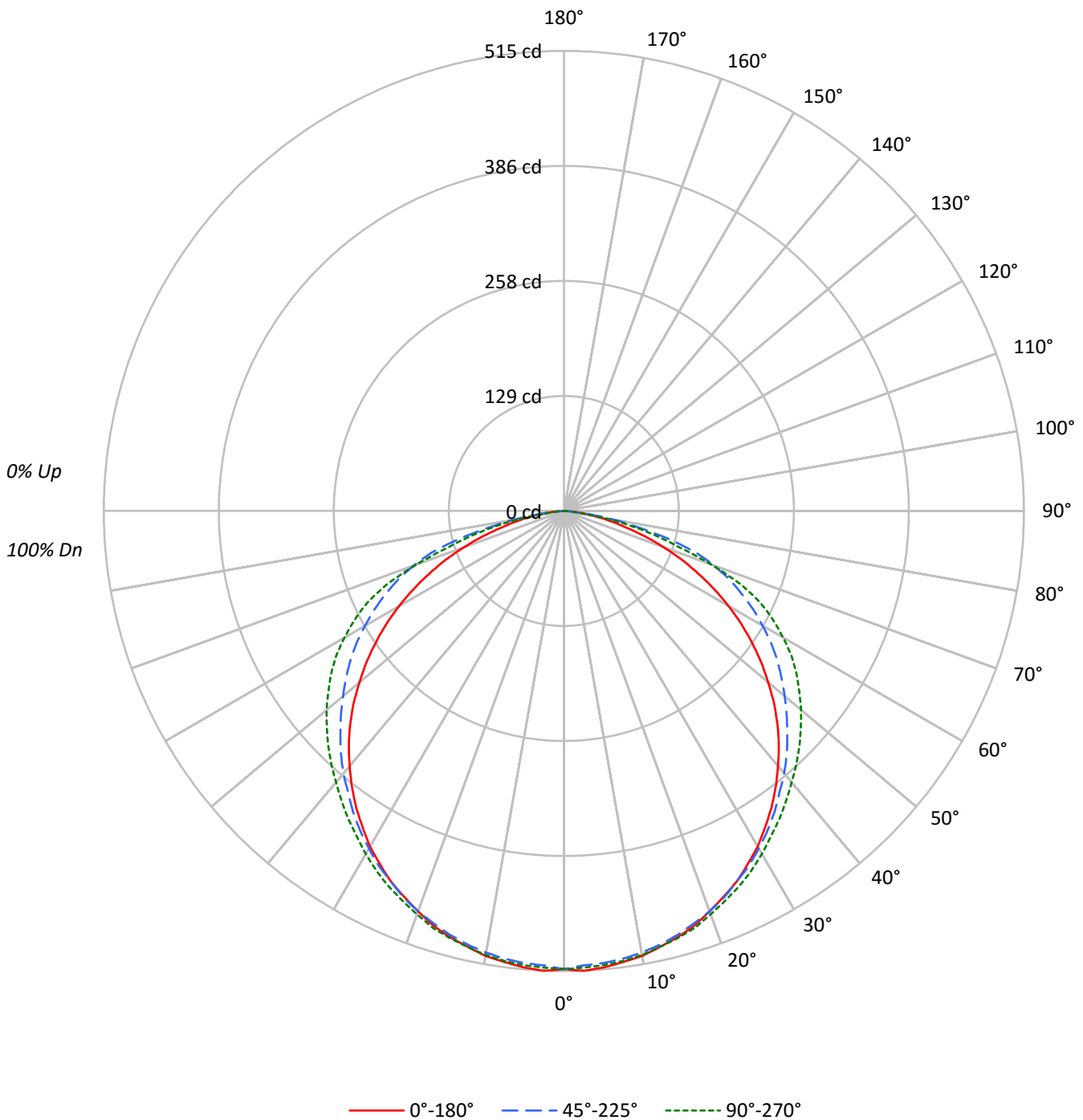
Input Watts (W): 23.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1380	1380	1380
5°	1385	1372	1379
10°	1382	1372	1378
15°	1375	1369	1378
20°	1366	1366	1376
25°	1359	1359	1377
30°	1348	1356	1378
35°	1331	1351	1382
40°	1310	1348	1394
45°	1287	1346	1419
50°	1251	1351	1451
55°	1206	1368	1491
60°	1145	1383	1525
65°	1058	1400	1545
70°	940	1411	1382
75°	758	1267	1106
80°	592	890	722
85°	404	259	185



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.5	3.2
10°-20°	139.2	9.1
20°-30°	212.0	13.8
30°-40°	258.2	16.9
40°-50°	274.0	17.9
50°-60°	258.6	16.9
60°-70°	208.8	13.6
70°-80°	113.3	7.4
80°-90°	18.3	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°	399.8	26.1
0°-40°	658.1	43.0
0°-60°	1190.6	77.8
0°-90°	1531.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1531.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	513	513	513	513	513	
5°	513	512	508	512	510	49
15°	494	492	491	495	495	139
25°	458	457	458	463	464	211
35°	405	408	411	420	421	253
45°	338	343	354	367	373	260
55°	257	268	292	311	318	230
65°	166	186	220	238	243	165
75°	73	106	122	110	106	80
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°	512.8	512.8	512.8	512.8	512.8
2.5°	515.2	512.8	509.2	512.8	511.6
5°	512.8	511.6	508.0	511.6	510.4
7.5°	509.2	509.2	505.6	508.0	508.0
10°	505.6	504.4	502.0	505.6	504.4
12.5°	499.6	498.4	497.2	500.8	499.6
15°	493.6	492.5	491.3	494.8	494.8
17.5°	486.5	485.3	484.1	488.9	488.9
20°	476.9	476.9	476.9	481.7	480.5
22.5°	467.4	467.4	468.5	473.3	472.1
25°	457.8	456.6	457.8	462.6	463.8
27.5°	445.8	447.0	448.2	453.0	454.2
30°	433.9	435.1	436.3	442.3	443.4
32.5°	419.5	421.9	424.3	431.5	431.5
35°	405.2	407.6	411.2	419.5	420.7
37.5°	389.7	392.0	396.8	406.4	408.8
40°	372.9	376.5	383.7	393.2	396.8
42.5°	356.2	361.0	369.3	380.1	384.9
45°	338.3	343.0	353.8	366.9	372.9
47.5°	319.1	325.1	338.3	355.0	359.8
50°	298.8	307.2	322.7	340.7	346.6
52.5°	278.5	288.1	307.2	326.3	332.3
55°	257.0	267.7	291.6	310.8	317.9
57.5°	235.5	247.4	274.9	295.2	302.4
60°	212.8	227.1	257.0	277.3	283.3
62.5°	190.0	206.8	239.1	259.4	264.2
65°	166.1	186.5	219.9	237.9	242.6
67.5°	143.4	167.3	200.8	214.0	214.0
70°	119.5	145.8	179.3	182.9	175.7
72.5°	95.6	125.5	155.4	142.2	136.3
75°	72.9	106.4	121.9	110.0	106.4
77.5°	55.0	86.1	86.1	78.9	76.5
80°	38.2	65.7	57.4	50.2	46.6
82.5°	25.1	37.1	29.9	23.9	20.3
85°	13.1	14.3	8.4	7.2	6.0
87.5°	4.8	2.4	1.2	2.4	1.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)