

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: P306983

Luminaire Tested: **14FCZ2-20-UNV-L82765-HRP-CA08-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: P306983
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-20-UNV-L82765-HRP-CA08-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" ACRYLIC 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: 1521.0 lumens
Efficiency: N/A
Efficacy: 91.1 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

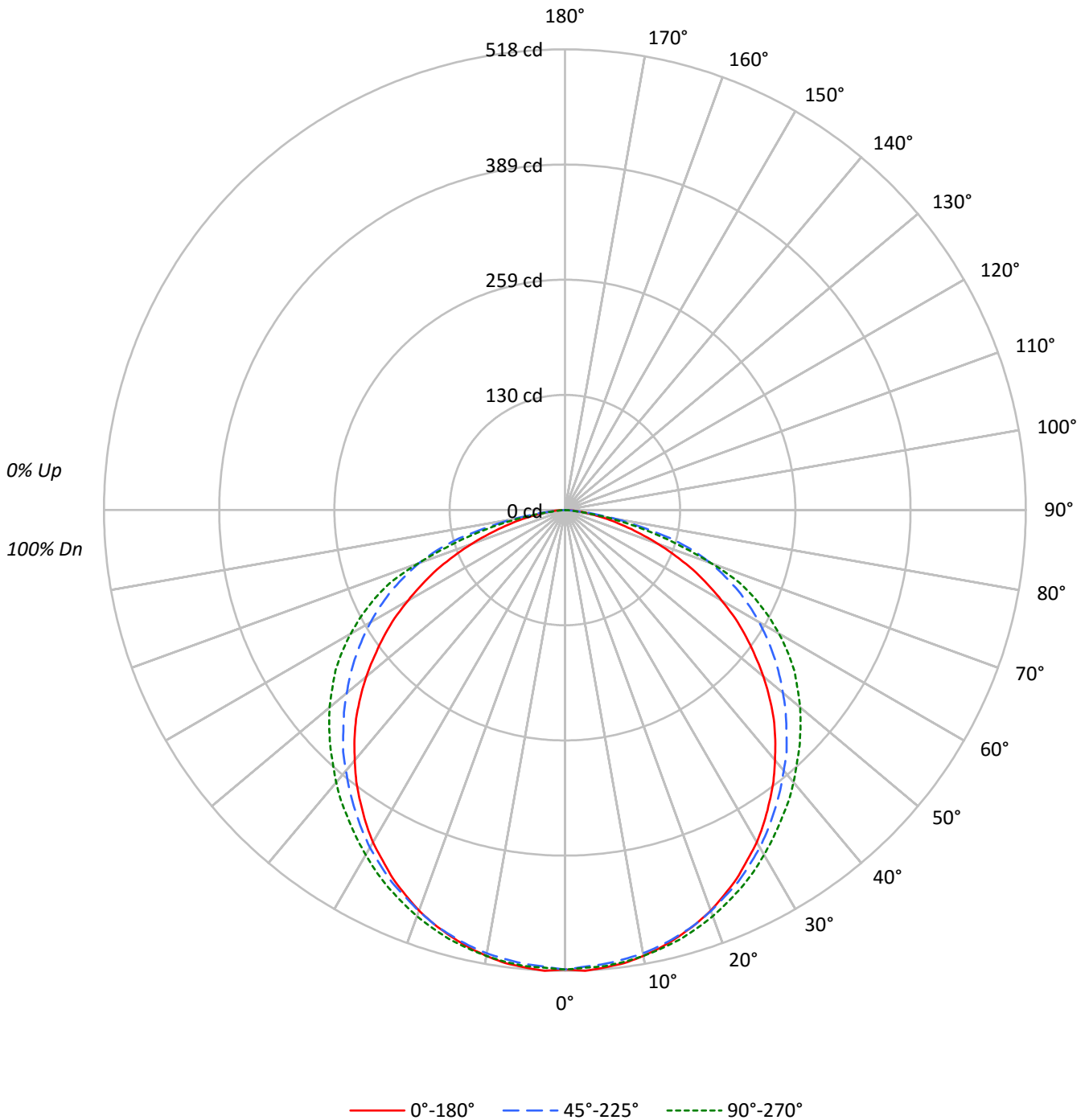
Input Watts (W): 16.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1390	1390	1390
5°	1394	1384	1390
10°	1391	1383	1391
15°	1382	1379	1392
20°	1372	1374	1391
25°	1358	1369	1392
30°	1340	1361	1391
35°	1317	1351	1394
40°	1290	1344	1404
45°	1263	1340	1420
50°	1220	1340	1446
55°	1167	1346	1476
60°	1096	1357	1496
65°	1011	1370	1505
70°	880	1374	1385
75°	726	1278	1119
80°	570	919	748
85°	442	355	176



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.9	3.2
10°-20°	140.3	9.2
20°-30°	213.1	14.0
30°-40°	258.2	17.0
40°-50°	272.1	17.9
50°-60°	254.0	16.7
60°-70°	203.0	13.3
70°-80°	111.7	7.3
80°-90°	19.7	1.3
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°	402.3	26.5
0°-40°	660.5	43.4
0°-60°	1186.6	78.0
0°-90°	1521.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1521.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	516	516	516	516	516	
5°	516	515	512	516	515	49
15°	496	496	495	500	500	140
25°	457	458	461	468	469	210
35°	401	405	411	422	424	251
45°	332	338	352	368	373	255
55°	249	261	287	307	315	222
65°	159	179	215	233	236	156
75°	70	100	123	110	108	75
85°	14	18	12	7	6	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	516.5	516.5	516.5	516.5	516.5
2.5°	518.5	517.0	513.7	516.5	515.1
5°	516.1	514.6	512.2	515.6	514.6
7.5°	513.7	511.8	509.4	513.2	512.2
10°	508.9	507.5	506.0	509.4	508.9
12.5°	503.1	502.7	501.2	505.1	504.6
15°	496.0	496.0	495.0	499.8	499.8
17.5°	488.3	487.8	488.3	493.6	493.1
20°	479.2	479.2	479.7	485.9	485.9
22.5°	468.2	468.7	470.1	477.8	477.3
25°	457.2	458.2	461.1	467.8	468.7
27.5°	443.8	446.2	449.6	457.7	458.7
30°	431.4	432.8	438.1	445.8	447.7
32.5°	416.6	419.4	425.2	433.8	436.2
35°	400.8	404.6	411.3	421.8	424.2
37.5°	385.0	388.4	397.4	408.4	412.8
40°	367.3	373.1	382.6	395.1	399.8
42.5°	350.1	355.8	368.8	381.7	386.0
45°	331.9	338.1	352.0	367.8	373.1
47.5°	311.8	319.0	336.7	353.4	359.2
50°	291.3	300.4	320.0	338.6	345.3
52.5°	269.7	281.2	303.7	323.3	329.5
55°	248.7	261.1	287.0	307.1	314.7
57.5°	227.2	240.6	269.7	292.7	297.0
60°	203.7	220.0	252.1	272.1	277.9
62.5°	180.8	199.4	233.9	253.0	257.8
65°	158.8	178.9	215.2	232.9	236.3
67.5°	134.9	158.8	194.7	210.9	211.9
70°	111.9	139.7	174.6	182.2	176.0
72.5°	89.4	119.1	151.1	144.9	139.7
75°	69.8	100.0	122.9	110.5	107.6
77.5°	51.7	81.8	88.0	81.3	76.0
80°	36.8	64.6	59.3	50.7	48.3
82.5°	25.3	40.7	32.5	25.3	22.0
85°	14.3	18.2	11.5	7.2	5.7
87.5°	6.2	4.3	2.4	1.9	1.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)