

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: P306986

Luminaire Tested: **14FCZ2-20-UNV-L82765-HRP-CA08-W2A-U-5500K**

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: P306986
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-5500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 5500K 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: 1585.0 lumens
Efficiency: N/A
Efficacy: 93.2 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

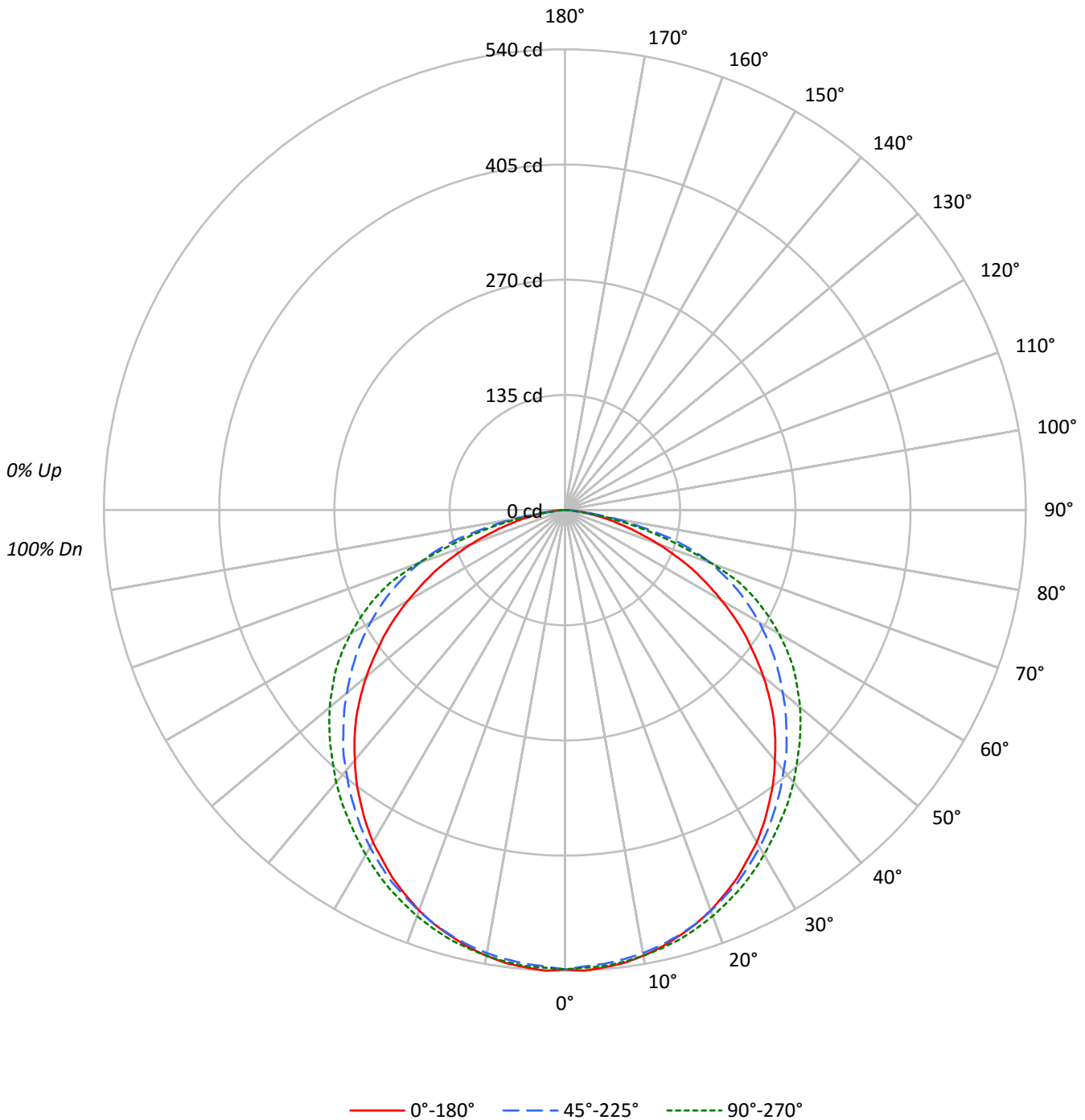
Input Watts (W): 17
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1449	1449	1449
5°	1453	1442	1449
10°	1449	1441	1449
15°	1440	1437	1451
20°	1430	1432	1450
25°	1415	1427	1450
30°	1397	1418	1450
35°	1372	1408	1452
40°	1345	1401	1464
45°	1316	1396	1480
50°	1271	1396	1506
55°	1216	1403	1538
60°	1143	1414	1559
65°	1054	1428	1568
70°	917	1431	1443
75°	757	1332	1166
80°	595	958	779
85°	463	371	185



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.0	3.2
10°-20°	146.2	9.2
20°-30°	222.1	14.0
30°-40°	269.1	17.0
40°-50°	283.5	17.9
50°-60°	264.7	16.7
60°-70°	211.5	13.3
70°-80°	116.4	7.3
80°-90°	20.6	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°	419.2	26.5
0°-40°	688.3	43.4
0°-60°	1236.5	78.0
0°-90°	1585.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1585.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	538	538	538	538	538	
5°	538	536	534	537	536	51
15°	517	517	516	521	521	146
25°	476	478	480	487	488	219
35°	418	422	429	440	442	261
45°	346	352	367	383	389	266
55°	259	272	299	320	328	231
65°	166	186	224	243	246	163
75°	73	104	128	115	112	78
85°	15	19	12	8	6	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	538.3	538.3	538.3	538.3	538.3
2.5°	540.3	538.8	535.3	538.3	536.8
5°	537.8	536.3	533.8	537.3	536.3
7.5°	535.3	533.3	530.8	534.8	533.8
10°	530.3	528.8	527.3	530.8	530.3
12.5°	524.3	523.8	522.3	526.3	525.8
15°	516.8	516.8	515.8	520.8	520.8
17.5°	508.9	508.4	508.9	514.4	513.9
20°	499.4	499.4	499.9	506.4	506.4
22.5°	487.9	488.4	489.9	497.9	497.4
25°	476.5	477.5	480.5	487.4	488.4
27.5°	462.5	465.0	468.5	477.0	478.0
30°	449.6	451.1	456.5	464.5	466.5
32.5°	434.1	437.1	443.1	452.1	454.5
35°	417.7	421.6	428.6	439.6	442.1
37.5°	401.2	404.7	414.2	425.6	430.1
40°	382.8	388.8	398.7	411.7	416.7
42.5°	364.8	370.8	384.3	397.7	402.2
45°	345.9	352.4	366.8	383.3	388.8
47.5°	325.0	332.4	350.9	368.3	374.3
50°	303.5	313.0	333.4	352.9	359.8
52.5°	281.1	293.1	316.5	336.9	343.4
55°	259.2	272.1	299.0	320.0	327.9
57.5°	236.7	250.7	281.1	305.0	309.5
60°	212.3	229.3	262.7	283.6	289.6
62.5°	188.4	207.8	243.7	263.7	268.6
65°	165.5	186.4	224.3	242.7	246.2
67.5°	140.5	165.5	202.8	219.8	220.8
70°	116.6	145.5	181.9	189.9	183.4
72.5°	93.2	124.1	157.5	151.0	145.5
75°	72.8	104.2	128.1	115.1	112.1
77.5°	53.8	85.2	91.7	84.7	79.2
80°	38.4	67.3	61.8	52.8	50.3
82.5°	26.4	42.4	33.9	26.4	22.9
85°	15.0	18.9	12.0	7.5	6.0
87.5°	6.5	4.5	2.5	2.0	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)