

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: P306985

Luminaire Tested: **14FCZ2-20-UNV-L82765-HRP-CA08-W2A-U-5000K**

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: P306985
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-5000K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 5000K 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: 1569.0 lumens
Efficiency: N/A
Efficacy: 92.8 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

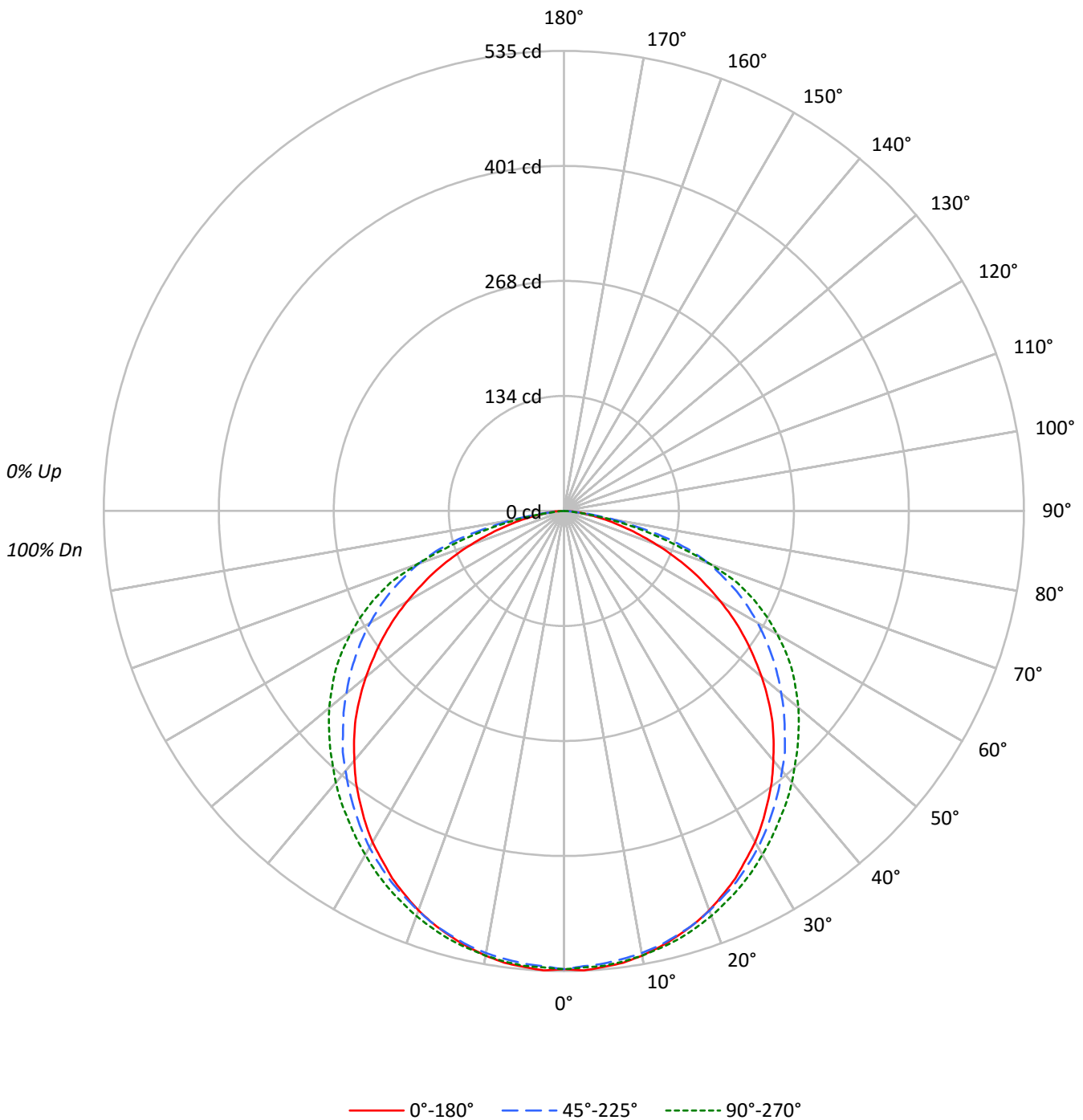
Input Watts (W): 16.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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CATALOG NUMBER: 14FC22-20-UNV-L82765-HRP-CA08-W2A-U-5000K

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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84				84
2	99	90	83	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69				69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58				58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49				49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42				42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37				37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33				33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29				29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26				26
10	52	39	31	26	51	38	31	26	37	30	26	37	30	25	36	30	25	24				24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1434	1434	1434
5°	1438	1427	1434
10°	1434	1426	1434
15°	1425	1422	1436
20°	1416	1417	1436
25°	1401	1412	1436
30°	1383	1404	1435
35°	1358	1394	1438
40°	1331	1387	1449
45°	1303	1382	1464
50°	1258	1382	1491
55°	1204	1389	1523
60°	1131	1399	1542
65°	1043	1414	1552
70°	908	1417	1429
75°	749	1318	1154
80°	589	948	772
85°	457	364	182



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.4	3.2
10°-20°	144.7	9.2
20°-30°	219.8	14.0
30°-40°	266.3	17.0
40°-50°	280.7	17.9
50°-60°	262.0	16.7
60°-70°	209.4	13.3
70°-80°	115.2	7.3
80°-90°	20.3	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°	415.0	26.5
0°-40°	681.4	43.4
0°-60°	1224.0	78.0
0°-90°	1569.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1569.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	533	533	533	533	533	
5°	532	531	528	532	531	51
15°	512	512	511	516	516	144
25°	472	473	476	482	484	217
35°	413	417	424	435	438	259
45°	342	349	363	379	385	263
55°	257	269	296	317	325	229
65°	164	184	222	240	244	161
75°	72	103	127	114	111	78
85°	15	19	12	7	6	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	532.8	532.8	532.8	532.8	532.8
2.5°	534.8	533.3	529.9	532.8	531.4
5°	532.3	530.9	528.4	531.9	530.9
7.5°	529.9	527.9	525.4	529.4	528.4
10°	524.9	523.5	522.0	525.4	524.9
12.5°	519.0	518.5	517.1	521.0	520.5
15°	511.6	511.6	510.6	515.6	515.6
17.5°	503.7	503.2	503.7	509.2	508.7
20°	494.4	494.4	494.9	501.3	501.3
22.5°	483.0	483.5	485.0	492.9	492.4
25°	471.7	472.6	475.6	482.5	483.5
27.5°	457.8	460.3	463.8	472.2	473.1
30°	445.0	446.5	451.9	459.8	461.8
32.5°	429.7	432.7	438.6	447.5	450.0
35°	413.4	417.4	424.3	435.2	437.6
37.5°	397.2	400.6	410.0	421.3	425.8
40°	378.9	384.8	394.7	407.5	412.5
42.5°	361.1	367.1	380.4	393.7	398.2
45°	342.4	348.8	363.1	379.4	384.8
47.5°	321.7	329.1	347.3	364.6	370.5
50°	300.5	309.8	330.1	349.3	356.2
52.5°	278.3	290.1	313.3	333.5	339.9
55°	256.6	269.4	296.0	316.7	324.6
57.5°	234.4	248.2	278.3	301.9	306.4
60°	210.2	227.0	260.0	280.7	286.6
62.5°	186.5	205.7	241.3	261.0	265.9
65°	163.8	184.5	222.0	240.3	243.7
67.5°	139.1	163.8	200.8	217.6	218.6
70°	115.4	144.1	180.1	188.0	181.6
72.5°	92.3	122.8	155.9	149.5	144.1
75°	72.0	103.1	126.8	114.0	111.0
77.5°	53.3	84.4	90.8	83.9	78.4
80°	38.0	66.6	61.2	52.3	49.8
82.5°	26.1	41.9	33.5	26.1	22.7
85°	14.8	18.7	11.8	7.4	5.9
87.5°	6.4	4.4	2.5	2.0	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)