

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: P307797

Luminaire Tested: **14FCZ2-20-UNV-L82765-S-CA08-W2A-U-5700K**

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: P307797
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)
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-S-CA08-W2A-U-5700K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 5700K 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: 2117.0 lumens
Efficiency: N/A
Efficacy: 124.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

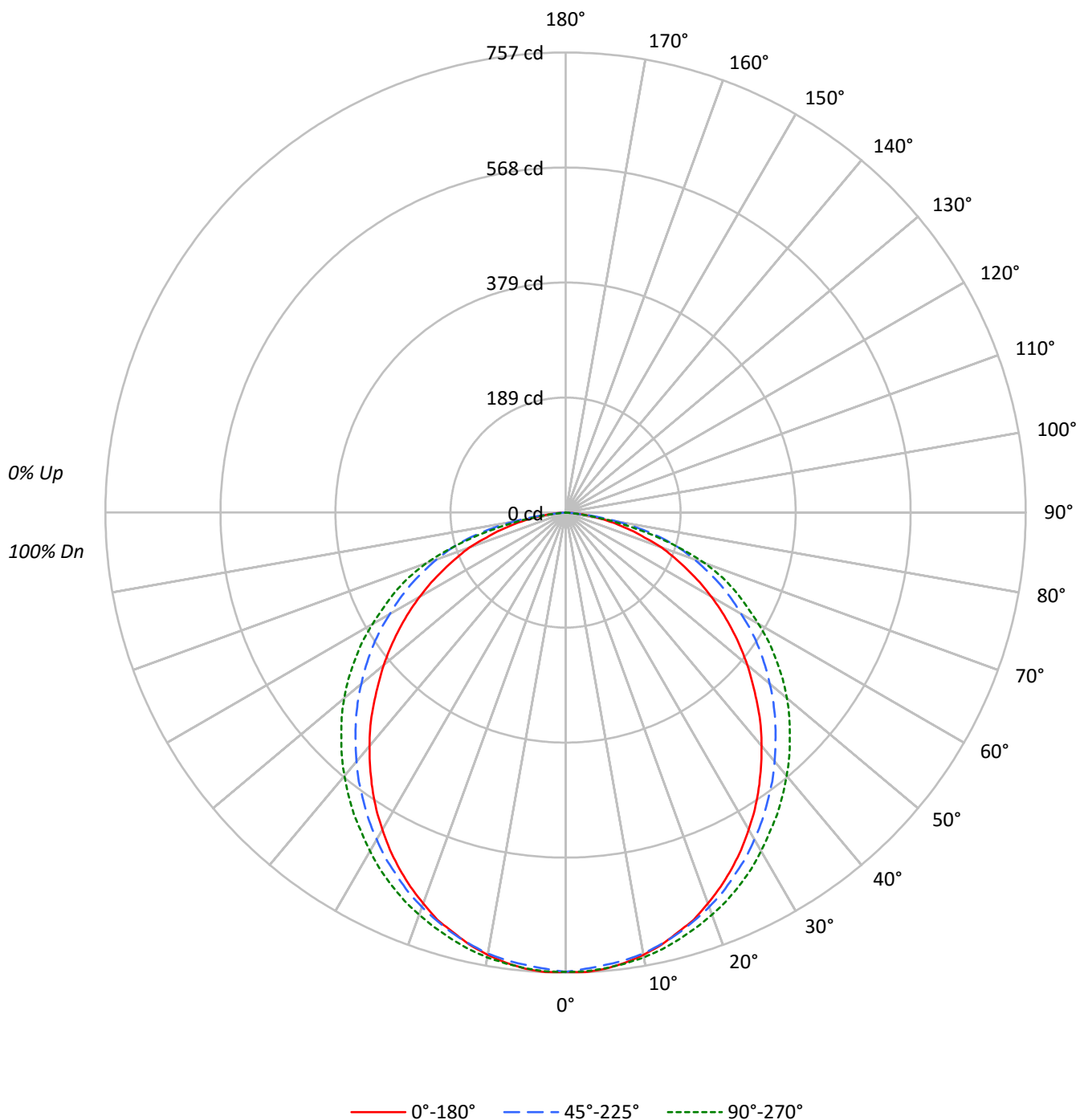
Input Watts (W): 17
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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	94	91	89	90	88	86	84		
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70		
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58		
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50		
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43		
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38		
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33		
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30		
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27		
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2034	2034	2034
5°	2036	2019	2033
10°	2019	2013	2031
15°	1991	1997	2023
20°	1960	1978	2017
25°	1920	1954	2010
30°	1872	1931	1999
35°	1821	1903	1993
40°	1762	1880	1988
45°	1698	1858	1985
50°	1635	1837	1991
55°	1566	1822	1985
60°	1491	1796	1971
65°	1403	1791	1971
70°	1321	1776	1916
75°	1146	1735	1637
80°	927	1399	1089
85°	614	485	324



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.4	3.4
10°-20°	203.1	9.6
20°-30°	304.6	14.4
30°-40°	363.4	17.2
40°-50°	375.7	17.7
50°-60°	343.0	16.2
60°-70°	269.9	12.7
70°-80°	157.1	7.4
80°-90°	28.9	1.4
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°	579.0	27.4
0°-40°	942.4	44.5
0°-60°	1661.0	78.5
0°-90°	2117.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2117.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	756	756	756	756	756	
5°	754	752	747	754	753	71
15°	715	716	717	726	726	202
25°	647	650	658	674	677	298
35°	554	562	579	601	607	346
45°	446	461	488	515	522	345
55°	334	352	388	417	423	298
65°	220	244	281	303	310	219
75°	110	136	167	164	157	117
85°	20	28	16	13	10	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	755.7	755.7	755.7	755.7	755.7
2.5°	756.8	754.7	751.5	756.8	755.7
5°	753.6	751.5	747.3	753.6	752.6
7.5°	747.3	745.2	743.1	749.4	748.4
10°	738.9	737.9	736.8	744.2	743.1
12.5°	728.4	728.4	727.4	735.8	735.8
15°	714.8	715.8	716.9	726.3	726.3
17.5°	702.2	701.2	704.3	714.8	715.8
20°	684.4	686.5	690.7	703.3	704.3
22.5°	666.5	668.6	676.0	688.6	691.7
25°	646.6	649.7	658.1	673.9	677.0
27.5°	625.6	629.8	641.3	658.1	661.3
30°	602.5	608.8	621.4	640.3	643.4
32.5°	579.4	585.7	601.4	620.3	624.5
35°	554.2	561.6	579.4	601.4	606.7
37.5°	528.0	537.4	558.4	580.4	586.7
40°	501.7	512.2	535.3	558.4	565.8
42.5°	475.5	486.0	511.2	537.4	544.8
45°	446.1	460.8	488.1	515.4	521.7
47.5°	417.8	433.5	463.9	491.2	499.6
50°	390.5	406.2	438.7	467.1	475.5
52.5°	362.1	378.9	413.6	442.9	450.3
55°	333.8	351.6	388.4	416.7	423.0
57.5°	305.4	324.3	362.1	389.4	396.8
60°	277.1	297.0	333.8	361.1	366.3
62.5°	248.8	269.8	307.5	331.7	336.9
65°	220.4	243.5	281.3	303.3	309.6
67.5°	193.1	216.2	253.0	274.0	279.2
70°	167.9	188.9	225.7	241.4	243.5
72.5°	136.5	162.7	198.4	206.8	201.5
75°	110.2	136.5	166.9	163.7	157.4
77.5°	84.0	110.2	130.2	119.7	111.3
80°	59.8	86.1	90.3	74.5	70.3
82.5°	38.8	59.8	50.4	38.8	31.5
85°	19.9	28.3	15.7	12.6	10.5
87.5°	6.3	4.2	2.1	2.1	1.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)