

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: P307099

Luminaire Tested: **14FCZ2-29-UNV-L82765-HRP-CP187-W2A-U-3500K**

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: P307099
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: 14FCZ2-29-UNV-L82765-HRP-CP187-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.187"
POLYCARB SHEET
Light Source: (168) 3500K 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: 1942.0 lumens
Efficiency: N/A
Efficacy: 81.3 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

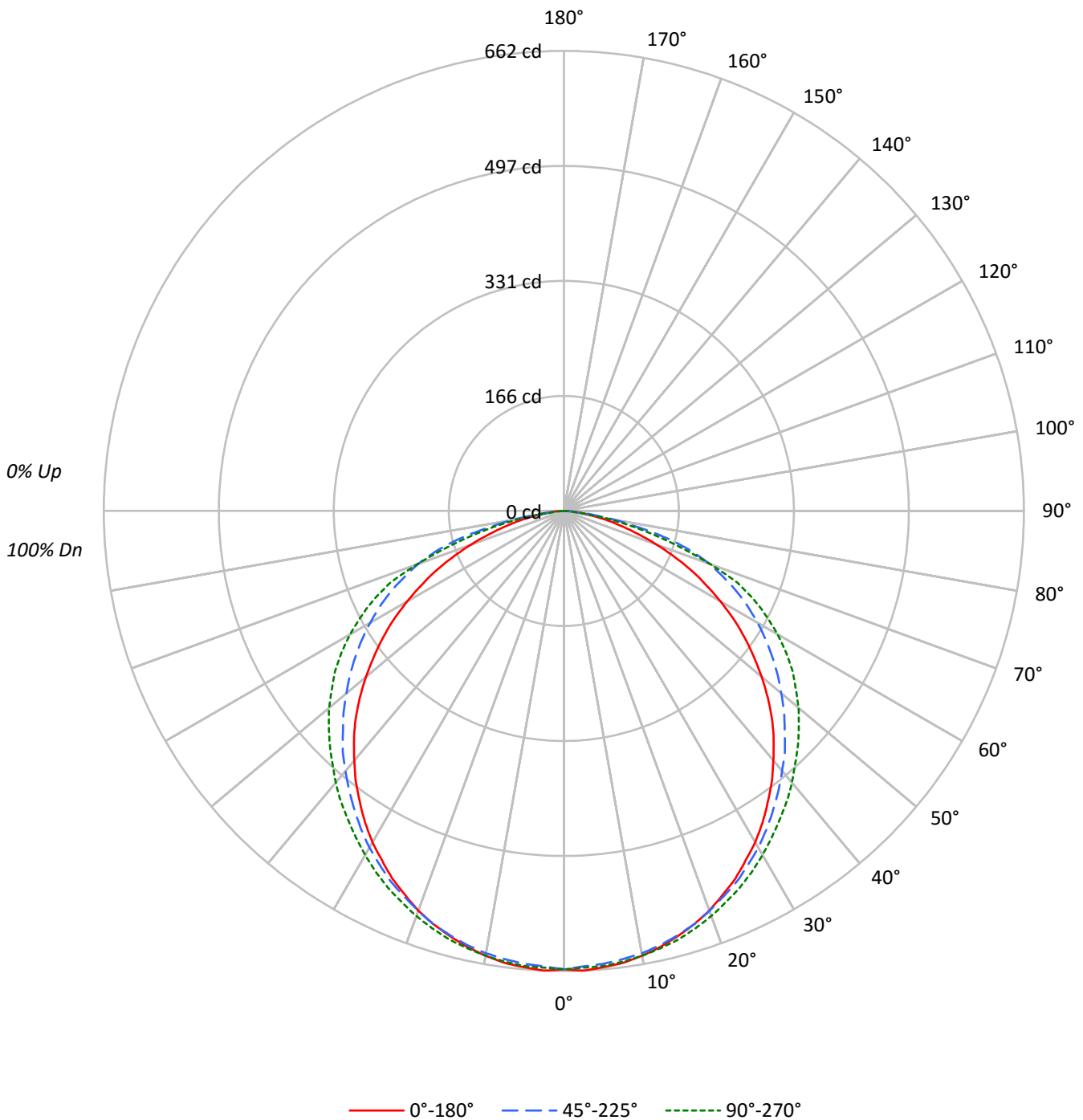
Input Watts (W): 23.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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CATALOG NUMBER: 14FC22-29-UNV-L82765-HRP-CP187-W2A-U-3500K

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°	1775	1775	1775
5°	1780	1767	1775
10°	1775	1765	1775
15°	1764	1761	1778
20°	1752	1754	1777
25°	1733	1748	1777
30°	1711	1738	1776
35°	1681	1725	1780
40°	1648	1716	1793
45°	1613	1710	1813
50°	1557	1710	1846
55°	1490	1719	1885
60°	1400	1732	1910
65°	1291	1750	1921
70°	1124	1754	1768
75°	927	1631	1429
80°	728	1173	956
85°	565	454	225



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.4	3.2
10°-20°	179.2	9.2
20°-30°	272.1	14.0
30°-40°	329.7	17.0
40°-50°	347.4	17.9
50°-60°	324.3	16.7
60°-70°	259.2	13.3
70°-80°	142.6	7.3
80°-90°	25.2	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°	513.7	26.5
0°-40°	843.3	43.4
0°-60°	1515.0	78.0
0°-90°	1942.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1942.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	660	660	660	660	660	
5°	659	657	654	658	657	63
15°	633	633	632	638	638	179
25°	584	585	589	597	598	269
35°	512	517	525	539	542	320
45°	424	432	449	470	476	326
55°	318	333	366	392	402	283
65°	203	228	275	297	302	200
75°	89	128	157	141	137	96
85°	18	23	15	9	7	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	659.5	659.5	659.5	659.5	659.5
2.5°	662.0	660.1	655.8	659.5	657.7
5°	658.9	657.1	654.0	658.3	657.1
7.5°	655.8	653.4	650.4	655.2	654.0
10°	649.7	647.9	646.1	650.4	649.7
12.5°	642.4	641.8	640.0	644.9	644.2
15°	633.3	633.3	632.0	638.1	638.1
17.5°	623.5	622.9	623.5	630.2	629.6
20°	611.9	611.9	612.5	620.4	620.4
22.5°	597.8	598.4	600.3	610.0	609.4
25°	583.8	585.0	588.7	597.2	598.4
27.5°	566.7	569.7	574.0	584.4	585.6
30°	550.8	552.6	559.4	569.1	571.6
32.5°	531.9	535.5	542.9	553.9	556.9
35°	511.7	516.6	525.2	538.6	541.7
37.5°	491.6	495.9	507.5	521.5	527.0
40°	469.0	476.3	488.5	504.4	510.5
42.5°	447.0	454.3	470.8	487.3	492.8
45°	423.8	431.7	449.4	469.6	476.3
47.5°	398.2	407.3	429.9	451.3	458.6
50°	371.9	383.5	408.5	432.3	440.9
52.5°	344.4	359.1	387.8	412.8	420.7
55°	317.5	333.4	366.4	392.0	401.8
57.5°	290.1	307.2	344.4	373.7	379.2
60°	260.1	280.9	321.8	347.5	354.8
62.5°	230.8	254.6	298.6	323.0	329.1
65°	202.7	228.4	274.8	297.4	301.7
67.5°	172.2	202.7	248.5	269.3	270.5
70°	142.9	178.3	222.9	232.7	224.7
72.5°	114.2	152.1	193.0	185.0	178.3
75°	89.2	127.6	156.9	141.1	137.4
77.5°	66.0	104.4	112.4	103.8	97.1
80°	47.0	82.4	75.7	64.7	61.7
82.5°	32.4	51.9	41.5	32.4	28.1
85°	18.3	23.2	14.7	9.2	7.3
87.5°	7.9	5.5	3.1	2.4	2.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)