

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: P307008

Luminaire Tested: **14FCZ2-20-UNV-L82765-HRP-CP187-W2A-U-3000K**

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: P307008
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-CP187-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.187"
POLYCARB SHEET
Light Source: (168) 3000K 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: 1346.0 lumens
Efficiency: N/A
Efficacy: 82.1 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

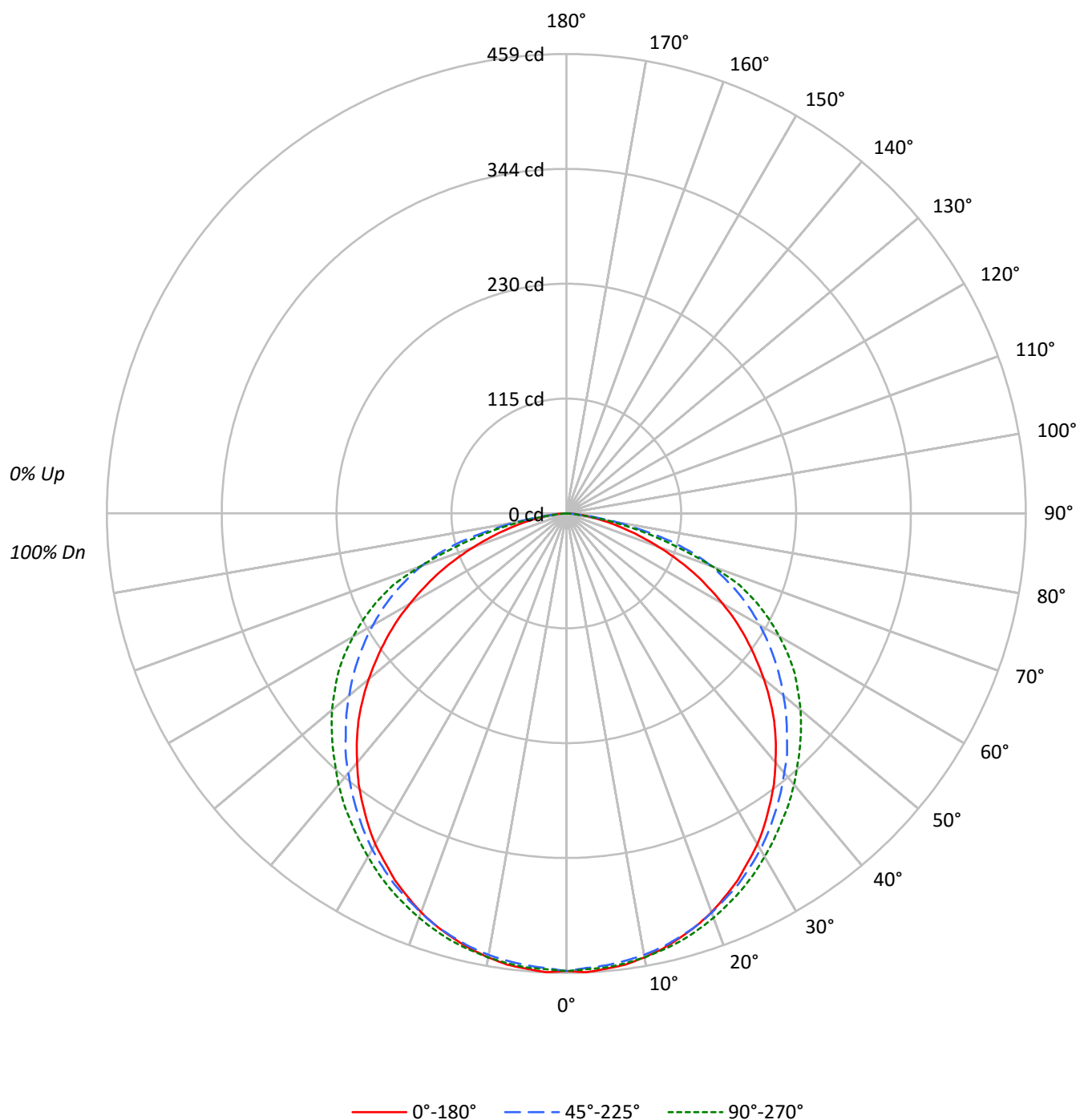
Input Watts (W): 16.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1230	1230	1230
5°	1234	1224	1230
10°	1230	1224	1230
15°	1223	1221	1232
20°	1214	1216	1231
25°	1201	1211	1232
30°	1186	1205	1231
35°	1165	1196	1233
40°	1142	1189	1243
45°	1118	1185	1256
50°	1079	1186	1279
55°	1033	1191	1307
60°	970	1201	1323
65°	895	1213	1331
70°	779	1216	1226
75°	643	1131	990
80°	505	814	662
85°	392	315	157



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.3	3.2
10°-20°	124.2	9.2
20°-30°	188.6	14.0
30°-40°	228.5	17.0
40°-50°	240.8	17.9
50°-60°	224.8	16.7
60°-70°	179.6	13.3
70°-80°	98.8	7.3
80°-90°	17.5	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°	356.0	26.5
0°-40°	584.5	43.4
0°-60°	1050.1	78.0
0°-90°	1346.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1346.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	457	457	457	457	457	
5°	457	455	453	456	455	43
15°	439	439	438	442	442	124
25°	405	406	408	414	415	186
35°	355	358	364	373	375	222
45°	294	299	312	326	330	226
55°	220	231	254	272	278	196
65°	140	158	190	206	209	138
75°	62	88	109	98	95	66
85°	13	16	10	6	5	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	457.1	457.1	457.1	457.1	457.1
2.5°	458.8	457.5	454.6	457.1	455.8
5°	456.7	455.4	453.3	456.3	455.4
7.5°	454.6	452.9	450.8	454.1	453.3
10°	450.3	449.1	447.8	450.8	450.3
12.5°	445.3	444.8	443.6	447.0	446.5
15°	438.9	438.9	438.1	442.3	442.3
17.5°	432.1	431.7	432.1	436.8	436.4
20°	424.1	424.1	424.5	430.0	430.0
22.5°	414.4	414.8	416.1	422.8	422.4
25°	404.6	405.5	408.0	413.9	414.8
27.5°	392.8	394.9	397.9	405.0	405.9
30°	381.8	383.0	387.7	394.5	396.2
32.5°	368.6	371.2	376.3	383.9	386.0
35°	354.7	358.1	364.0	373.3	375.4
37.5°	340.7	343.7	351.7	361.5	365.3
40°	325.1	330.1	338.6	349.6	353.8
42.5°	309.8	314.9	326.3	337.8	341.6
45°	293.7	299.2	311.5	325.5	330.1
47.5°	276.0	282.3	298.0	312.8	317.9
50°	257.8	265.8	283.2	299.7	305.6
52.5°	238.7	248.9	268.8	286.1	291.6
55°	220.1	231.1	253.9	271.7	278.5
57.5°	201.0	212.9	238.7	259.0	262.8
60°	180.3	194.7	223.1	240.8	245.9
62.5°	160.0	176.5	207.0	223.9	228.1
65°	140.5	158.3	190.5	206.1	209.1
67.5°	119.4	140.5	172.3	186.7	187.5
70°	99.0	123.6	154.5	161.3	155.8
72.5°	79.1	105.4	133.7	128.2	123.6
75°	61.8	88.5	108.8	97.8	95.2
77.5°	45.7	72.4	77.9	72.0	67.3
80°	32.6	57.1	52.5	44.9	42.7
82.5°	22.4	36.0	28.8	22.4	19.5
85°	12.7	16.1	10.2	6.3	5.1
87.5°	5.5	3.8	2.1	1.7	1.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)