

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: P307461

Luminaire Tested: **14FCZ2-39-UNV-L82765-RDP-CP187-W2A-U-4500K**

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: P307461
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-43)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-39-UNV-L82765-RDP-CP187-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.187" POLYCARB SHEET
Light Source: (168) 4500K 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: 2268.0 lumens
Efficiency: N/A
Efficacy: 66.9 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.28 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

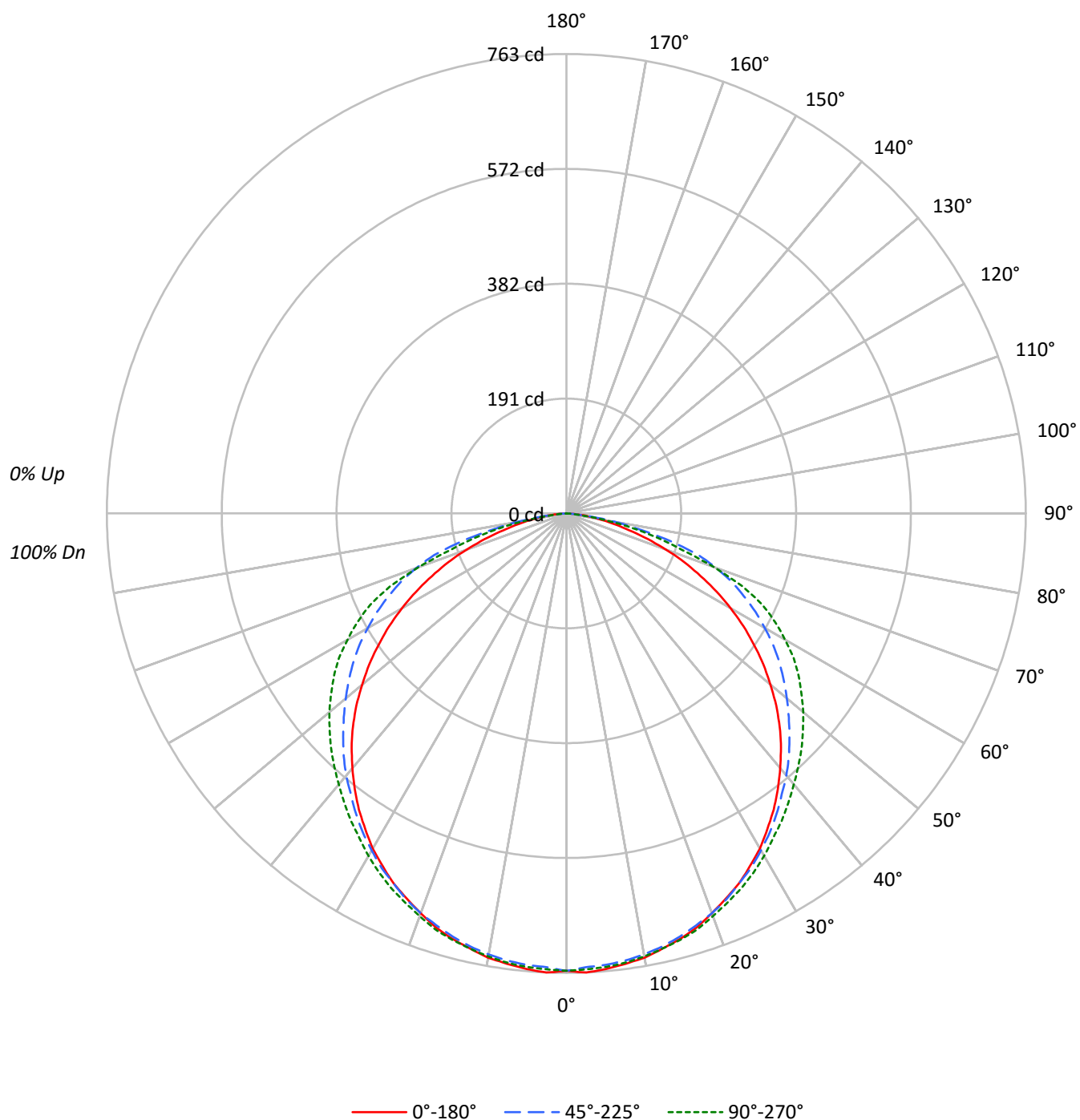
Input Watts (W): 33.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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	77	96	88	82	76	85	79	75		81	77	73		69
3	90	79	71	64	87	77	70	63	74	68	62		71	66	61		58
4	82	70	61	54	80	68	60	53	66	58	53		63	57	52		49
5	75	62	53	46	73	61	52	46	59	51	45		57	50	45		42
6	69	56	47	40	67	55	46	40	53	45	40		51	44	39		37
7	64	50	42	35	62	50	41	35	48	40	35		47	40	35		32
8	60	46	37	31	58	45	37	31	44	36	31		43	36	31		29
9	56	42	34	28	54	42	34	28	40	33	28		39	33	28		26
10	52	39	31	25	51	38	31	25	37	30	25		36	30	25		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2044	2044	2044
5°	2052	2033	2042
10°	2047	2032	2042
15°	2037	2027	2042
20°	2023	2023	2038
25°	2014	2014	2040
30°	1997	2008	2041
35°	1972	2001	2048
40°	1940	1997	2065
45°	1907	1995	2102
50°	1853	2002	2150
55°	1786	2027	2210
60°	1696	2049	2258
65°	1567	2074	2288
70°	1393	2090	2048
75°	1123	1878	1639
80°	879	1317	1071
85°	602	383	275



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.9	3.2
10°-20°	206.3	9.1
20°-30°	314.1	13.8
30°-40°	382.6	16.9
40°-50°	405.9	17.9
50°-60°	383.1	16.9
60°-70°	309.3	13.6
70°-80°	167.8	7.4
80°-90°	27.2	1.2
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°	592.3	26.1
0°-40°	974.8	43.0
0°-60°	1763.8	77.8
0°-90°	2268.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2268.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	760	760	760	760	760	
5°	760	758	752	758	756	72
15°	731	730	728	733	733	206
25°	678	676	678	685	687	312
35°	600	604	609	622	623	375
45°	501	508	524	544	552	386
55°	381	397	432	460	471	340
65°	246	276	326	352	359	244
75°	108	158	181	163	158	118
85°	20	21	12	11	9	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	759.6	759.6	759.6	759.6	759.6
2.5°	763.2	759.6	754.3	759.6	757.8
5°	759.6	757.8	752.5	757.8	756.1
7.5°	754.3	754.3	749.0	752.5	752.5
10°	749.0	747.2	743.7	749.0	747.2
12.5°	740.1	738.4	736.6	741.9	740.1
15°	731.3	729.5	727.7	733.1	733.1
17.5°	720.7	718.9	717.1	724.2	724.2
20°	706.5	706.5	706.5	713.6	711.8
22.5°	692.3	692.3	694.1	701.2	699.4
25°	678.2	676.4	678.2	685.2	687.0
27.5°	660.5	662.2	664.0	671.1	672.8
30°	642.7	644.5	646.3	655.1	656.9
32.5°	621.5	625.0	628.6	639.2	639.2
35°	600.3	603.8	609.1	621.5	623.3
37.5°	577.2	580.8	587.9	602.0	605.6
40°	552.4	557.8	568.4	582.5	587.9
42.5°	527.7	534.7	547.1	563.1	570.2
45°	501.1	508.2	524.1	543.6	552.4
47.5°	472.8	481.6	501.1	525.9	533.0
50°	442.7	455.1	478.1	504.6	513.5
52.5°	412.6	426.7	455.1	483.4	492.2
55°	380.7	396.6	432.0	460.4	471.0
57.5°	348.8	366.5	407.3	437.4	448.0
60°	315.2	336.4	380.7	410.8	419.6
62.5°	281.5	306.3	354.1	384.2	391.3
65°	246.1	276.2	325.8	352.4	359.4
67.5°	212.5	247.9	297.5	316.9	316.9
70°	177.1	216.0	265.6	270.9	260.3
72.5°	141.7	185.9	230.2	210.7	201.9
75°	108.0	157.6	180.6	162.9	157.6
77.5°	81.5	127.5	127.5	116.9	113.3
80°	56.7	97.4	85.0	74.4	69.1
82.5°	37.2	54.9	44.3	35.4	30.1
85°	19.5	21.2	12.4	10.6	8.9
87.5°	7.1	3.5	1.8	3.5	1.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)