

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: P307548

Luminaire Tested: **14FCZ2-20-UNV-L82765-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: P307548
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-49)
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-CP187-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE,RIBBED 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: 1774.0 lumens
Efficiency: N/A
Efficacy: 108.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

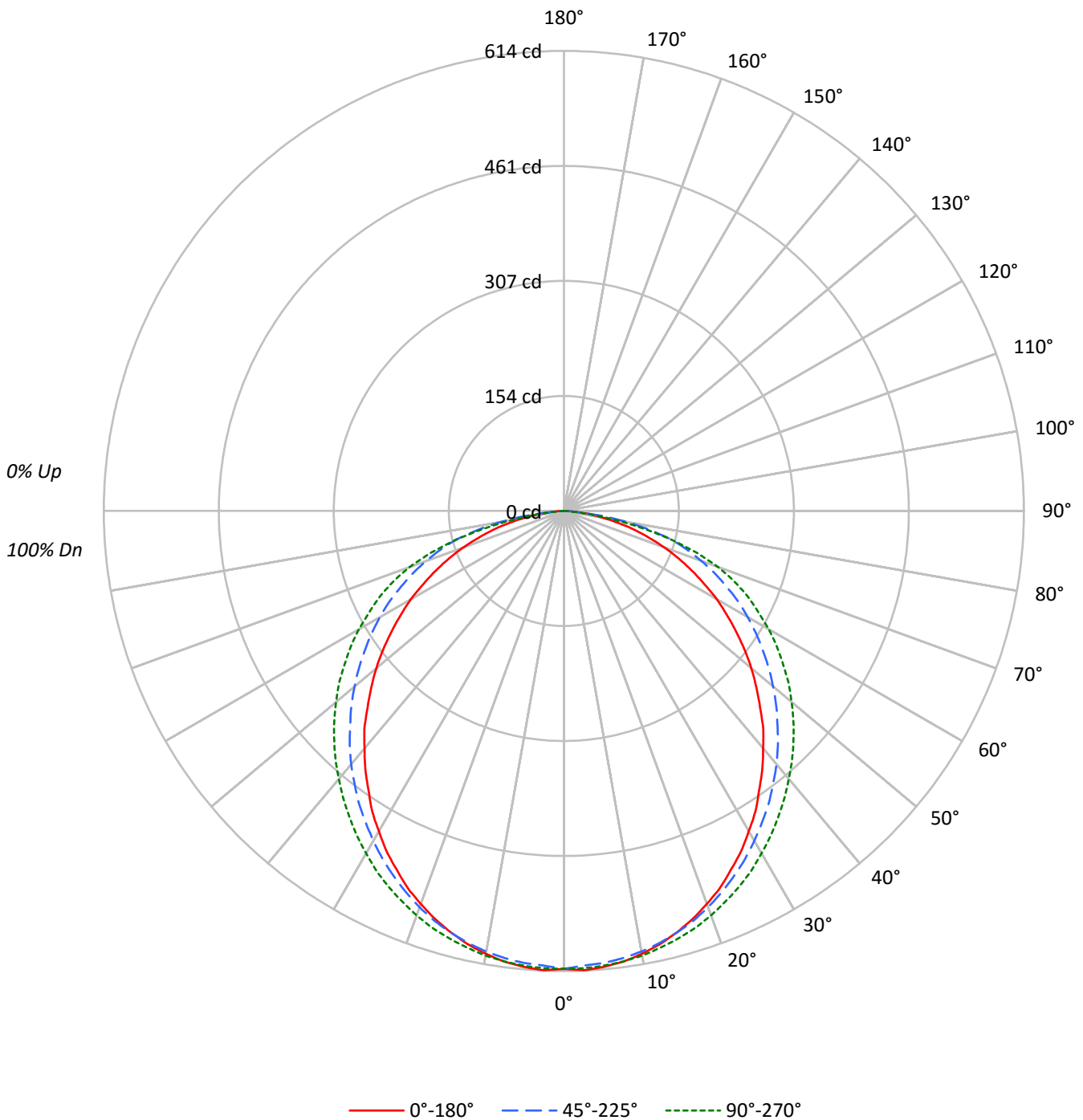
Input Watts (W): 16.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	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	39	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1644	1644	1644
5°	1650	1636	1646
10°	1640	1631	1646
15°	1622	1623	1645
20°	1598	1612	1645
25°	1568	1596	1643
30°	1534	1579	1640
35°	1493	1566	1639
40°	1454	1551	1641
45°	1409	1534	1650
50°	1368	1527	1661
55°	1316	1522	1676
60°	1269	1524	1699
65°	1204	1529	1726
70°	1130	1541	1724
75°	1024	1554	1559
80°	840	1342	1110
85°	624	636	256



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.8	3.3
10°-20°	165.2	9.3
20°-30°	248.9	14.0
30°-40°	298.6	16.8
40°-50°	311.3	17.5
50°-60°	288.2	16.2
60°-70°	232.8	13.1
70°-80°	142.0	8.0
80°-90°	29.3	1.7
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°	471.9	26.6
0°-40°	770.5	43.4
0°-60°	1369.9	77.2
0°-90°	1774.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1774.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	611	611	611	611	611	
5°	611	609	606	610	609	58
15°	582	583	583	591	591	164
25°	528	531	538	551	553	243
35°	454	462	477	494	499	285
45°	370	381	403	426	434	286
55°	280	295	324	350	357	251
65°	189	208	240	264	271	187
75°	98	120	150	152	150	103
85°	20	30	21	12	8	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	611.1	611.1	611.1	611.1	611.1
2.5°	613.5	611.5	607.2	611.5	610.8
5°	610.8	609.2	605.6	610.0	609.2
7.5°	606.8	605.2	602.1	607.2	606.4
10°	600.1	599.3	596.9	602.8	602.4
12.5°	592.2	591.8	590.6	597.3	596.9
15°	582.3	582.7	582.7	590.6	590.6
17.5°	571.2	572.0	573.6	582.3	583.5
20°	558.1	559.7	562.9	572.8	574.4
22.5°	544.7	545.9	550.6	562.5	564.1
25°	528.1	531.2	537.6	551.0	553.4
27.5°	512.3	515.0	523.7	537.6	541.5
30°	493.7	498.0	508.3	523.3	527.7
32.5°	475.9	480.6	492.5	509.9	513.8
35°	454.5	461.6	476.7	494.1	498.8
37.5°	435.1	441.8	458.9	477.8	483.4
40°	413.8	422.1	441.5	461.6	467.2
42.5°	394.0	401.9	422.9	443.4	450.9
45°	370.2	381.3	403.1	425.6	433.5
47.5°	348.5	359.6	384.5	408.6	415.7
50°	326.7	338.6	364.7	389.6	396.8
52.5°	304.2	316.8	344.9	369.9	378.2
55°	280.5	295.1	324.4	349.7	357.2
57.5°	257.9	272.9	304.2	329.9	337.4
60°	235.8	251.2	283.2	307.7	315.7
62.5°	211.2	229.4	262.7	286.8	292.7
65°	189.1	207.7	240.1	264.2	271.0
67.5°	165.7	185.9	218.4	240.5	246.8
70°	143.6	164.6	195.8	216.4	219.1
72.5°	119.9	141.2	172.9	185.9	185.9
75°	98.5	120.3	149.5	151.9	149.9
77.5°	75.2	99.3	118.3	113.5	108.8
80°	54.2	77.9	86.6	77.9	71.6
82.5°	36.4	56.6	52.2	41.5	36.8
85°	20.2	30.1	20.6	11.5	8.3
87.5°	7.5	6.7	2.0	2.0	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)