

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: P307372

Luminaire Tested: **14FCZ2-29-UNV-L82765-RDP-CP187-W2A-U-5000K**

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: P307372
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: 14FCZ2-29-UNV-L82765-RDP-CP187-W2A-U-5000K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.187" POLYCARB SHEET
Light Source: (168) 5000K 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: 1732.0 lumens
Efficiency: N/A
Efficacy: 71.0 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

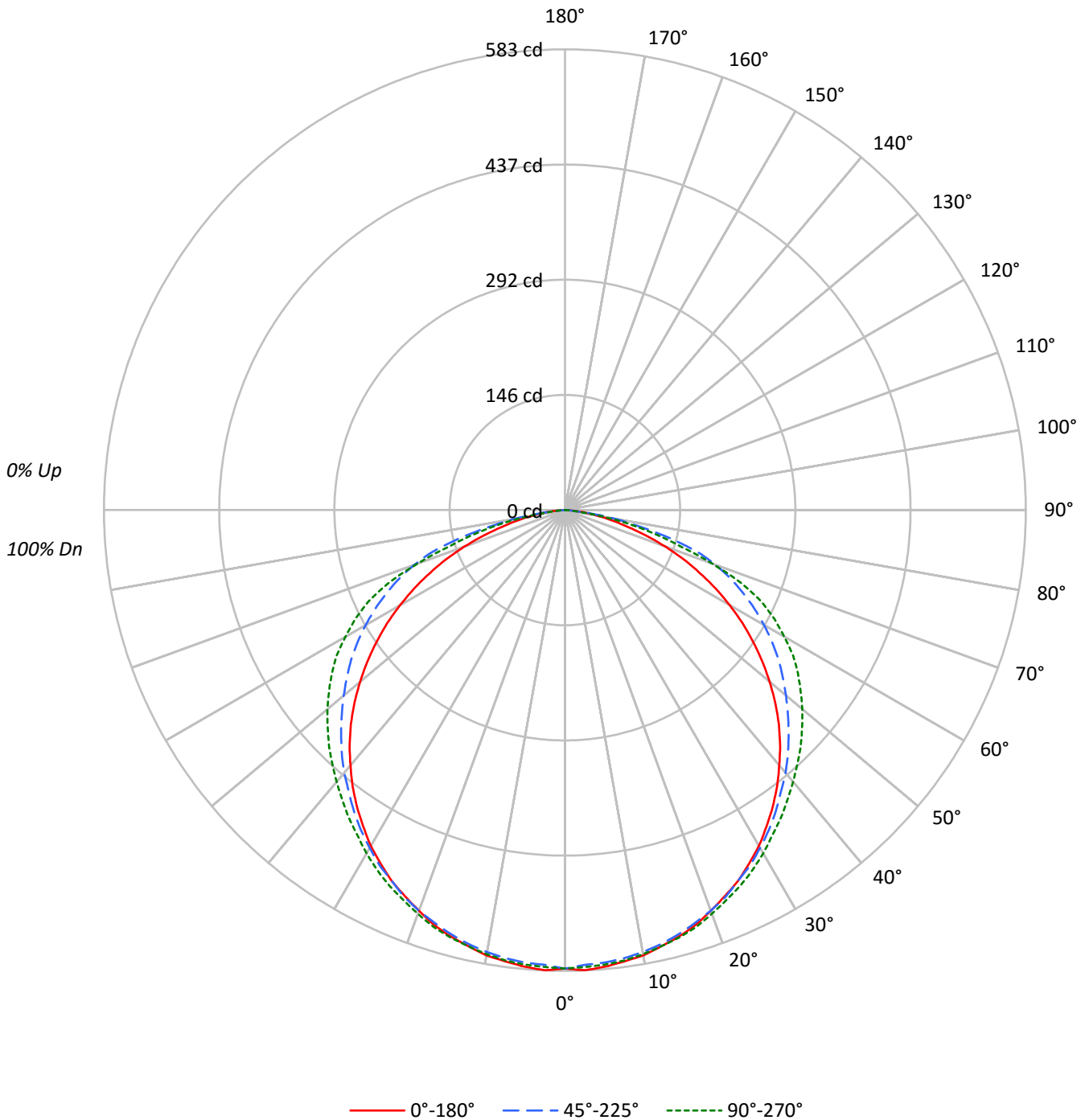
Input Watts (W): 24.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	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	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1561	1561	1561
5°	1567	1552	1560
10°	1563	1552	1559
15°	1556	1548	1560
20°	1545	1545	1557
25°	1538	1538	1558
30°	1525	1534	1559
35°	1506	1528	1564
40°	1482	1525	1577
45°	1456	1523	1606
50°	1415	1528	1641
55°	1364	1548	1688
60°	1295	1565	1725
65°	1197	1584	1748
70°	1064	1596	1564
75°	858	1434	1251
80°	671	1006	817
85°	460	293	210



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.9	3.2
10°-20°	157.5	9.1
20°-30°	239.9	13.8
30°-40°	292.1	16.9
40°-50°	310.0	17.9
50°-60°	292.5	16.9
60°-70°	236.2	13.6
70°-80°	128.1	7.4
80°-90°	20.7	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°	452.3	26.1
0°-40°	744.4	43.0
0°-60°	1346.9	77.8
0°-90°	1732.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1732.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	580	580	580	580	580	
5°	580	579	575	579	577	55
15°	558	557	556	560	560	158
25°	518	516	518	523	525	238
35°	458	461	465	475	476	287
45°	383	388	400	415	422	295
55°	291	303	330	352	360	260
65°	188	211	249	269	274	186
75°	82	120	138	124	120	90
85°	15	16	10	8	7	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	580.1	580.1	580.1	580.1	580.1
2.5°	582.8	580.1	576.0	580.1	578.7
5°	580.1	578.7	574.7	578.7	577.4
7.5°	576.0	576.0	572.0	574.7	574.7
10°	572.0	570.6	567.9	572.0	570.6
12.5°	565.2	563.9	562.5	566.6	565.2
15°	558.5	557.1	555.8	559.8	559.8
17.5°	550.3	549.0	547.6	553.0	553.0
20°	539.5	539.5	539.5	544.9	543.6
22.5°	528.7	528.7	530.1	535.5	534.1
25°	517.9	516.5	517.9	523.3	524.7
27.5°	504.4	505.7	507.1	512.5	513.8
30°	490.8	492.2	493.6	500.3	501.7
32.5°	474.6	477.3	480.0	488.1	488.1
35°	458.4	461.1	465.2	474.6	476.0
37.5°	440.8	443.5	448.9	459.7	462.5
40°	421.9	425.9	434.1	444.9	448.9
42.5°	403.0	408.4	417.8	430.0	435.4
45°	382.7	388.1	400.2	415.1	421.9
47.5°	361.0	367.8	382.7	401.6	407.0
50°	338.0	347.5	365.1	385.4	392.1
52.5°	315.1	325.9	347.5	369.1	375.9
55°	290.7	302.9	329.9	351.6	359.7
57.5°	266.4	279.9	311.0	334.0	342.1
60°	240.7	256.9	290.7	313.7	320.5
62.5°	215.0	233.9	270.4	293.4	298.8
65°	188.0	210.9	248.8	269.1	274.5
67.5°	162.3	189.3	227.2	242.0	242.0
70°	135.2	165.0	202.8	206.9	198.8
72.5°	108.2	142.0	175.8	160.9	154.2
75°	82.5	120.3	137.9	124.4	120.3
77.5°	62.2	97.4	97.4	89.2	86.5
80°	43.3	74.4	64.9	56.8	52.7
82.5°	28.4	41.9	33.8	27.0	23.0
85°	14.9	16.2	9.5	8.1	6.8
87.5°	5.4	2.7	1.4	2.7	1.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)