

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: P307818

Luminaire Tested: **14FCZ2-20-UNV-L82765-S-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: P307818
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)
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-S-CP187-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH 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: 1793.0 lumens
Efficiency: N/A
Efficacy: 109.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

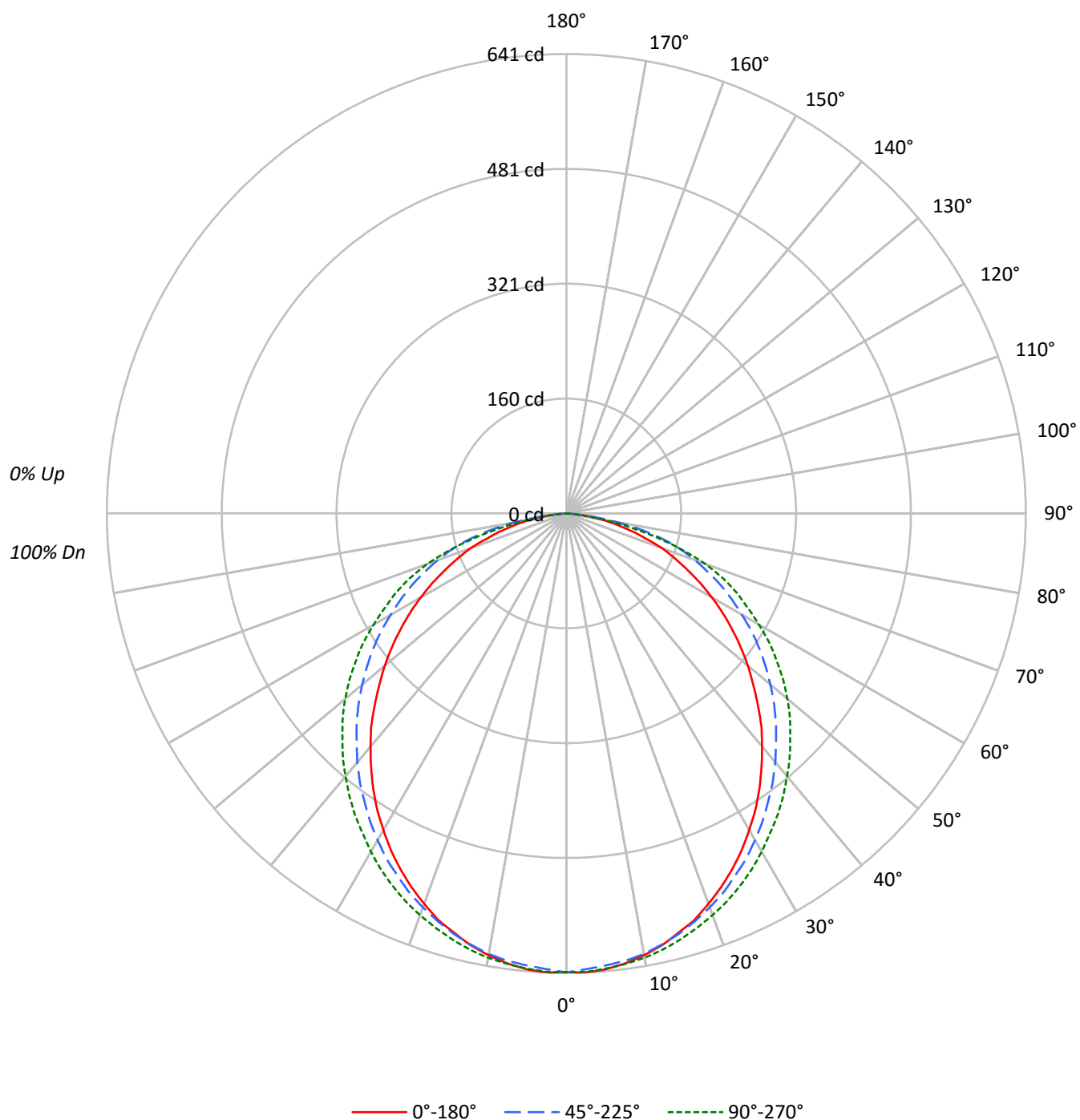
Input Watts (W): 16.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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		94	91	89		84
2	99	90	84	78	96	89	82	77	85	80	75		82	77	73		70
3	90	79	71	65	87	78	70	64	75	68	63		72	66	62		58
4	82	70	61	55	80	69	61	54	66	59	53		64	58	53		50
5	76	63	54	47	74	62	53	47	59	52	46		57	51	46		43
6	70	56	47	41	68	55	47	41	54	46	40		52	45	40		38
7	65	51	42	36	63	50	42	36	49	41	36		47	41	35		33
8	60	47	38	32	59	46	38	32	45	37	32		43	37	32		30
9	56	43	35	29	55	42	34	29	41	34	29		40	33	29		27
10	53	40	32	26	52	39	31	26	38	31	26		37	31	26		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1722	1722	1722
5°	1724	1710	1722
10°	1710	1705	1720
15°	1687	1692	1714
20°	1660	1675	1708
25°	1626	1655	1703
30°	1586	1635	1693
35°	1542	1612	1688
40°	1493	1593	1683
45°	1438	1573	1681
50°	1384	1556	1686
55°	1326	1543	1681
60°	1263	1521	1670
65°	1189	1517	1670
70°	1119	1504	1622
75°	970	1469	1386
80°	786	1185	924
85°	522	411	275



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.4	3.4
10°-20°	172.0	9.6
20°-30°	258.0	14.4
30°-40°	307.8	17.2
40°-50°	318.2	17.7
50°-60°	290.5	16.2
60°-70°	228.6	12.7
70°-80°	133.1	7.4
80°-90°	24.5	1.4
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°	490.4	27.4
0°-40°	798.2	44.5
0°-60°	1406.8	78.5
0°-90°	1793.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1793.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	640	640	640	640	640	
5°	638	636	633	638	637	61
15°	605	606	607	615	615	171
25°	548	550	557	571	573	252
35°	469	476	491	509	514	293
45°	378	390	413	436	442	292
55°	283	298	329	353	358	253
65°	187	206	238	257	262	185
75°	93	116	141	139	133	99
85°	17	24	13	11	9	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	640.1	640.1	640.1	640.1	640.1
2.5°	641.0	639.2	636.5	641.0	640.1
5°	638.3	636.5	633.0	638.3	637.4
7.5°	633.0	631.2	629.4	634.7	633.8
10°	625.8	625.0	624.1	630.3	629.4
12.5°	617.0	617.0	616.1	623.2	623.2
15°	605.4	606.3	607.2	615.2	615.2
17.5°	594.7	593.8	596.5	605.4	606.3
20°	579.6	581.4	585.0	595.6	596.5
22.5°	564.5	566.3	572.5	583.2	585.8
25°	547.6	550.3	557.4	570.7	573.4
27.5°	529.8	533.4	543.2	557.4	560.1
30°	510.3	515.6	526.3	542.3	544.9
32.5°	490.7	496.1	509.4	525.4	528.9
35°	469.4	475.6	490.7	509.4	513.8
37.5°	447.2	455.2	472.9	491.6	496.9
40°	424.9	433.8	453.4	472.9	479.2
42.5°	402.7	411.6	432.9	455.2	461.4
45°	377.8	390.3	413.4	436.5	441.8
47.5°	353.8	367.2	392.9	416.0	423.2
50°	330.7	344.0	371.6	395.6	402.7
52.5°	306.7	320.9	350.3	375.2	381.4
55°	282.7	297.8	328.9	352.9	358.3
57.5°	258.7	274.7	306.7	329.8	336.0
60°	234.7	251.6	282.7	305.8	310.3
62.5°	210.7	228.5	260.5	280.9	285.4
65°	186.7	206.2	238.2	256.9	262.3
67.5°	163.6	183.1	214.2	232.0	236.5
70°	142.2	160.0	191.1	204.5	206.2
72.5°	115.6	137.8	168.0	175.1	170.7
75°	93.3	115.6	141.3	138.7	133.3
77.5°	71.1	93.3	110.2	101.3	94.2
80°	50.7	72.9	76.5	63.1	59.6
82.5°	32.9	50.7	42.7	32.9	26.7
85°	16.9	24.0	13.3	10.7	8.9
87.5°	5.3	3.6	1.8	1.8	0.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)