

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: P307554

Luminaire Tested: **14FCZ2-20-UNV-L82765-CP187-W2A-U-5700K**

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: P307554
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-5700K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.187" POLYCARB SHEET
Light Source: (168) 5700K 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: 1960.0 lumens
Efficiency: N/A
Efficacy: 115.3 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

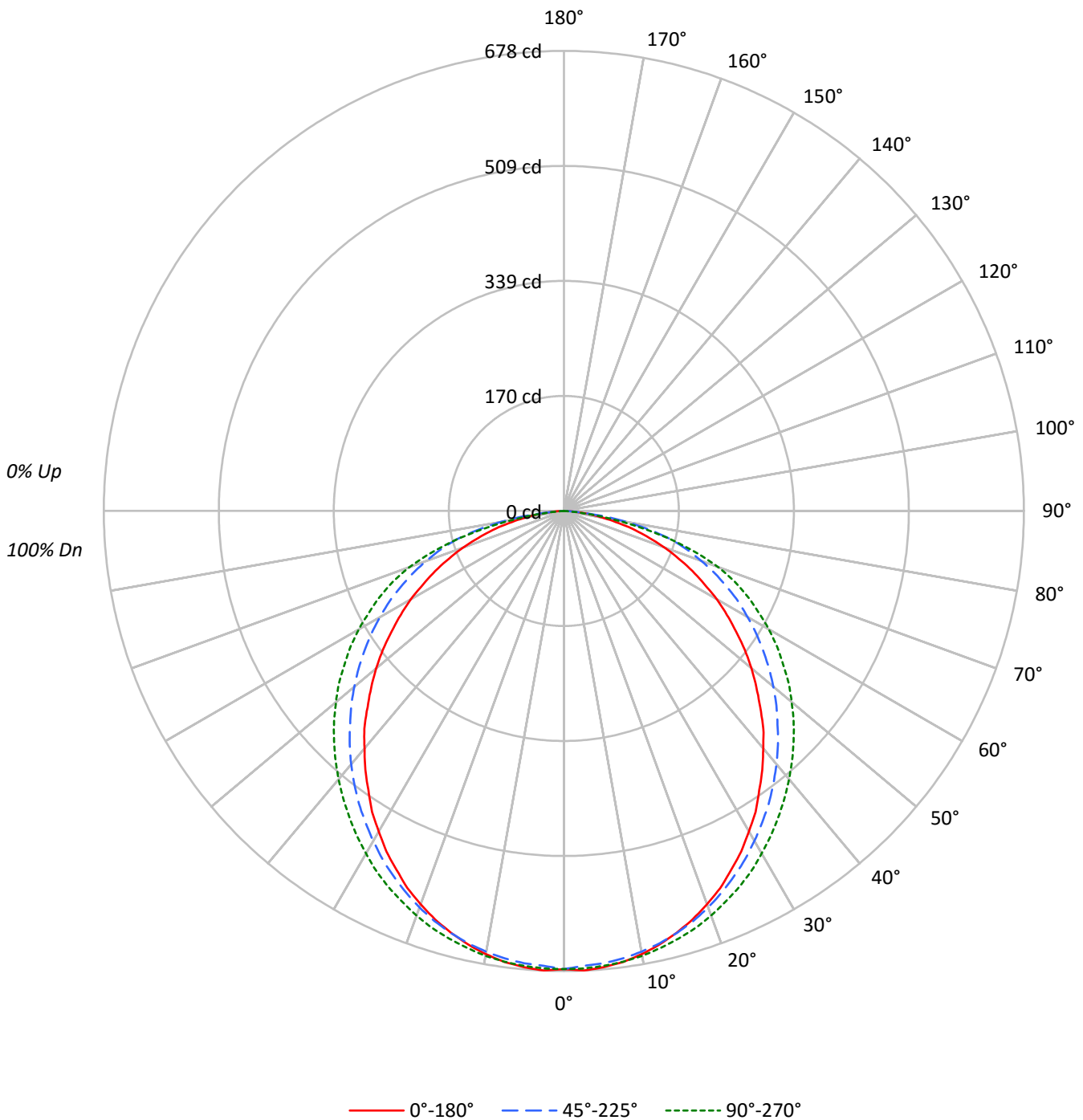
Input Watts (W): 17
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1817	1817	1817
5°	1823	1807	1818
10°	1812	1802	1819
15°	1792	1794	1818
20°	1766	1781	1817
25°	1732	1763	1815
30°	1695	1745	1812
35°	1650	1730	1810
40°	1606	1713	1813
45°	1557	1695	1823
50°	1511	1687	1835
55°	1454	1681	1851
60°	1402	1684	1877
65°	1330	1689	1906
70°	1248	1702	1905
75°	1131	1718	1722
80°	928	1483	1226
85°	689	701	284



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.9	3.3
10°-20°	182.5	9.3
20°-30°	274.9	14.0
30°-40°	329.9	16.8
40°-50°	343.9	17.5
50°-60°	318.4	16.2
60°-70°	257.2	13.1
70°-80°	156.8	8.0
80°-90°	32.4	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°	521.4	26.6
0°-40°	851.3	43.4
0°-60°	1513.5	77.2
0°-90°	1960.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1960.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	675	675	675	675	675	
5°	675	673	669	674	673	64
15°	643	644	644	652	652	181
25°	583	587	594	609	611	269
35°	502	510	527	546	551	315
45°	409	421	445	470	479	316
55°	310	326	358	386	395	278
65°	209	229	265	292	299	207
75°	109	133	165	168	166	114
85°	22	33	23	13	9	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	675.2	675.2	675.2	675.2	675.2
2.5°	677.8	675.7	670.9	675.7	674.8
5°	674.8	673.0	669.1	673.9	673.0
7.5°	670.4	668.7	665.2	670.9	670.0
10°	663.0	662.1	659.5	666.0	665.6
12.5°	654.2	653.8	652.5	659.9	659.5
15°	643.3	643.8	643.8	652.5	652.5
17.5°	631.1	632.0	633.7	643.3	644.6
20°	616.7	618.4	621.9	632.8	634.6
22.5°	601.8	603.1	608.4	621.5	623.2
25°	583.4	586.9	593.9	608.8	611.4
27.5°	566.0	569.0	578.6	593.9	598.3
30°	545.4	550.2	561.6	578.2	583.0
32.5°	525.8	531.0	544.1	563.3	567.7
35°	502.2	510.0	526.6	545.9	551.1
37.5°	480.7	488.2	507.0	527.9	534.1
40°	457.1	466.3	487.7	510.0	516.1
42.5°	435.3	444.0	467.2	489.9	498.2
45°	409.1	421.3	445.3	470.3	479.0
47.5°	385.0	397.3	424.8	451.5	459.3
50°	361.0	374.1	403.0	430.5	438.4
52.5°	336.1	350.1	381.1	408.6	417.8
55°	309.9	326.0	358.4	386.3	394.6
57.5°	284.9	301.6	336.1	364.5	372.8
60°	260.5	277.5	312.9	340.0	348.8
62.5°	233.4	253.5	290.2	316.9	323.4
65°	208.9	229.4	265.3	291.9	299.4
67.5°	183.1	205.4	241.2	265.7	272.7
70°	158.6	181.8	216.3	239.1	242.1
72.5°	132.4	156.0	191.0	205.4	205.4
75°	108.8	132.9	165.2	167.8	165.6
77.5°	83.0	109.7	130.7	125.4	120.2
80°	59.9	86.1	95.7	86.1	79.1
82.5°	40.2	62.5	57.7	45.9	40.6
85°	22.3	33.2	22.7	12.7	9.2
87.5°	8.3	7.4	2.2	2.2	2.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)