

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: P307553

Luminaire Tested: **14FCZ2-20-UNV-L82765-CP187-W2A-U-5500K**

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: P307553
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-5500K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.187" POLYCARB SHEET
Light Source: (168) 5500K 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: 1955.0 lumens
Efficiency: N/A
Efficacy: 115.0 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

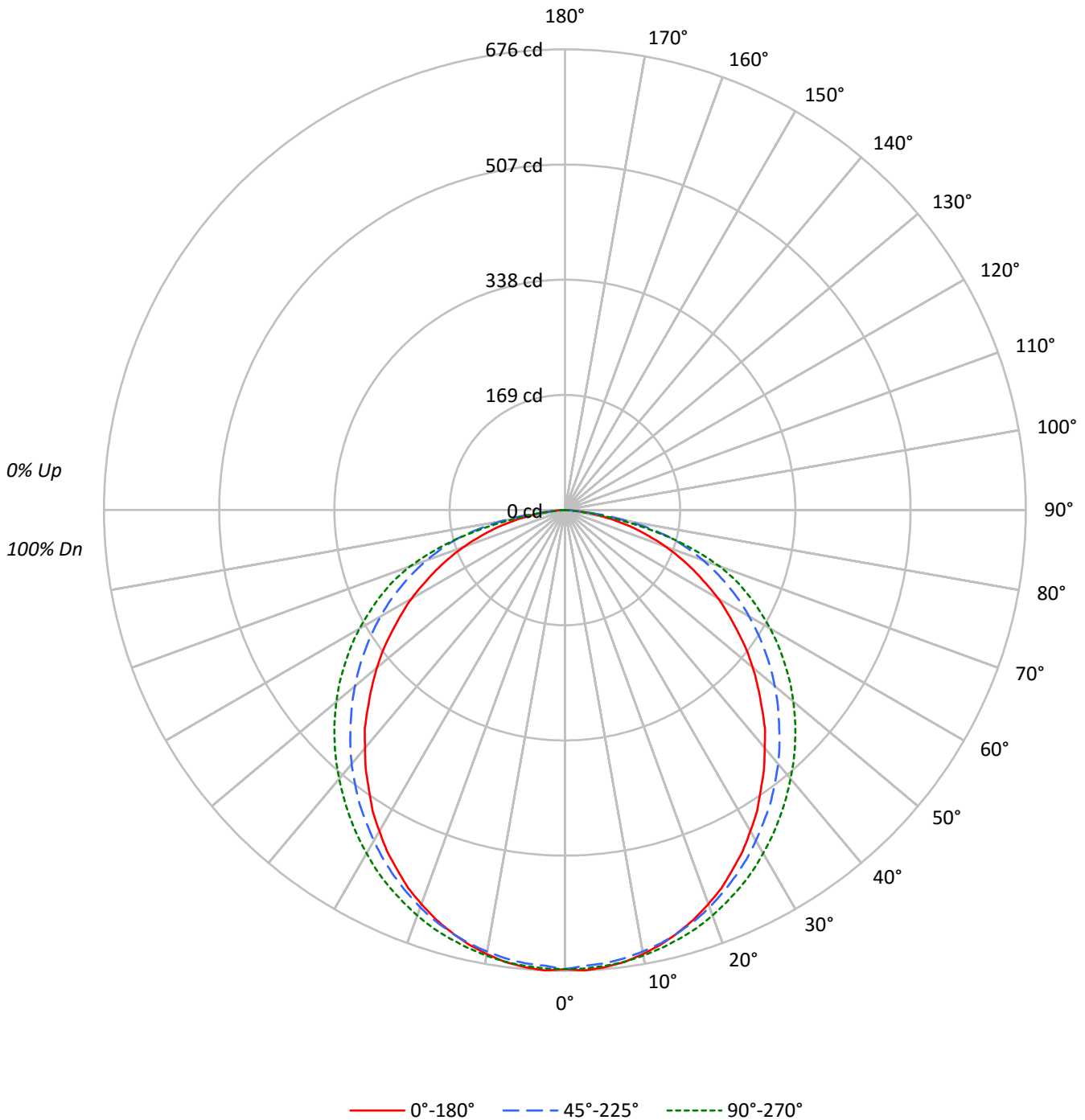
Input Watts (W): 17
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1812	1812	1812
5°	1818	1803	1813
10°	1807	1797	1814
15°	1788	1789	1813
20°	1761	1776	1813
25°	1728	1759	1811
30°	1690	1741	1807
35°	1645	1726	1806
40°	1602	1709	1808
45°	1553	1690	1818
50°	1508	1683	1830
55°	1450	1677	1847
60°	1398	1680	1872
65°	1327	1685	1901
70°	1245	1698	1900
75°	1128	1713	1718
80°	925	1480	1223
85°	685	701	284



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.7	3.3
10°-20°	182.0	9.3
20°-30°	274.2	14.0
30°-40°	329.1	16.8
40°-50°	343.0	17.5
50°-60°	317.6	16.2
60°-70°	256.6	13.1
70°-80°	156.4	8.0
80°-90°	32.3	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°	520.0	26.6
0°-40°	849.1	43.4
0°-60°	1509.7	77.2
0°-90°	1955.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1955.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	674	674	674	674	674	
5°	673	671	667	672	671	64
15°	642	642	642	651	651	181
25°	582	585	592	607	610	268
35°	501	509	525	544	550	314
45°	408	420	444	469	478	315
55°	309	325	358	385	394	277
65°	208	229	265	291	299	206
75°	108	132	165	167	165	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°	673.5	673.5	673.5	673.5	673.5
2.5°	676.1	673.9	669.1	673.9	673.1
5°	673.1	671.3	667.4	672.2	671.3
7.5°	668.7	667.0	663.5	669.1	668.3
10°	661.3	660.4	657.8	664.3	663.9
12.5°	652.6	652.1	650.8	658.2	657.8
15°	641.7	642.1	642.1	650.8	650.8
17.5°	629.5	630.3	632.1	641.7	643.0
20°	615.1	616.8	620.3	631.2	633.0
22.5°	600.3	601.6	606.8	619.9	621.6
25°	582.0	585.4	592.4	607.2	609.9
27.5°	564.5	567.6	577.2	592.4	596.8
30°	544.0	548.8	560.2	576.7	581.5
32.5°	524.4	529.6	542.7	561.9	566.3
35°	500.9	508.7	525.3	544.5	549.7
37.5°	479.5	486.9	505.7	526.6	532.7
40°	456.0	465.1	486.5	508.7	514.8
42.5°	434.2	442.9	466.0	488.7	497.0
45°	408.0	420.2	444.2	469.1	477.8
47.5°	384.0	396.3	423.7	450.3	458.2
50°	360.1	373.2	401.9	429.4	437.2
52.5°	335.2	349.2	380.1	407.6	416.7
55°	309.1	325.2	357.5	385.4	393.6
57.5°	284.2	300.8	335.2	363.6	371.8
60°	259.8	276.8	312.1	339.1	347.9
62.5°	232.8	252.8	289.5	316.0	322.6
65°	208.4	228.9	264.6	291.2	298.6
67.5°	182.7	204.9	240.6	265.0	272.0
70°	158.2	181.3	215.8	238.5	241.5
72.5°	132.1	155.6	190.5	204.9	204.9
75°	108.5	132.5	164.8	167.4	165.2
77.5°	82.8	109.4	130.3	125.1	119.9
80°	59.7	85.9	95.5	85.9	78.9
82.5°	40.1	62.3	57.5	45.8	40.5
85°	22.2	33.1	22.7	12.6	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)