

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: P307550

Luminaire Tested: **14FCZ2-20-UNV-L82765-CP187-W2A-U-4000K**

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: P307550
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-4000K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.187" POLYCARB SHEET
Light Source: (168) 4000K 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: 1876.0 lumens
Efficiency: N/A
Efficacy: 112.3 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

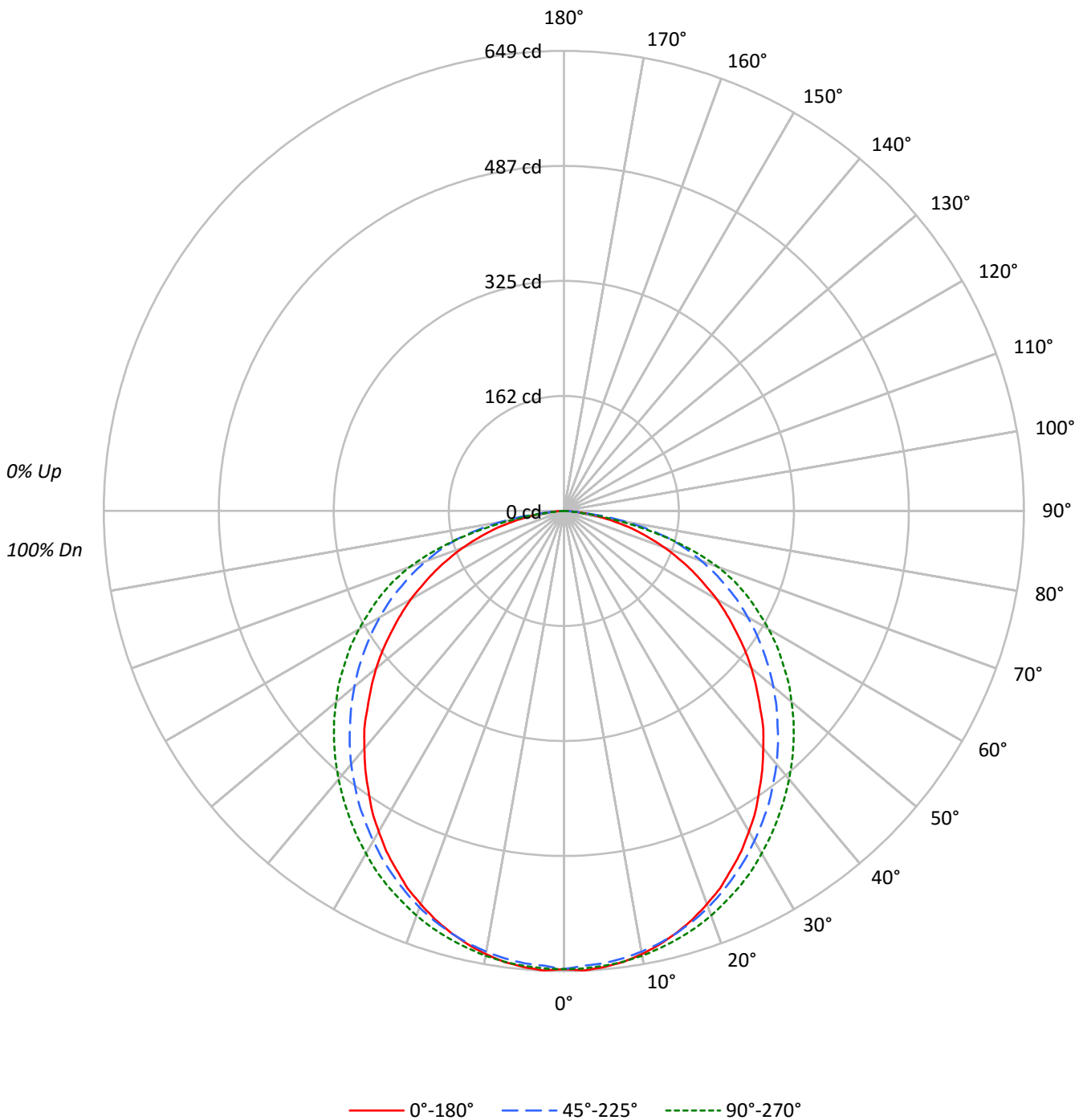
Input Watts (W): 16.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1739	1739	1739
5°	1745	1730	1740
10°	1734	1725	1741
15°	1716	1717	1740
20°	1690	1705	1739
25°	1658	1688	1738
30°	1622	1670	1734
35°	1579	1656	1733
40°	1537	1640	1735
45°	1490	1622	1745
50°	1446	1615	1757
55°	1392	1609	1772
60°	1342	1612	1796
65°	1273	1617	1824
70°	1194	1629	1823
75°	1083	1644	1648
80°	888	1420	1173
85°	658	673	272



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.2	3.3
10°-20°	174.7	9.3
20°-30°	263.2	14.0
30°-40°	315.8	16.8
40°-50°	329.2	17.5
50°-60°	304.7	16.2
60°-70°	246.2	13.1
70°-80°	150.1	8.0
80°-90°	31.0	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°	499.0	26.6
0°-40°	814.8	43.4
0°-60°	1448.7	77.2
0°-90°	1876.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1876.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	646	646	646	646	646	
5°	646	644	640	645	644	61
15°	616	616	616	624	624	174
25°	558	562	568	583	585	257
35°	481	488	504	522	528	301
45°	392	403	426	450	458	303
55°	297	312	343	370	378	266
65°	200	220	254	279	286	198
75°	104	127	158	161	158	109
85°	21	32	22	12	9	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	646.3	646.3	646.3	646.3	646.3
2.5°	648.8	646.7	642.1	646.7	645.9
5°	645.9	644.2	640.4	645.0	644.2
7.5°	641.7	640.0	636.7	642.1	641.3
10°	634.6	633.7	631.2	637.5	637.1
12.5°	626.2	625.8	624.5	631.6	631.2
15°	615.8	616.2	616.2	624.5	624.5
17.5°	604.0	604.9	606.5	615.8	617.0
20°	590.2	591.9	595.3	605.7	607.4
22.5°	576.0	577.3	582.3	594.8	596.5
25°	558.4	561.8	568.5	582.7	585.2
27.5°	541.7	544.6	553.8	568.5	572.7
30°	522.1	526.7	537.5	553.4	558.0
32.5°	503.2	508.2	520.8	539.2	543.4
35°	480.6	488.2	504.1	522.5	527.5
37.5°	460.1	467.3	485.2	505.3	511.2
40°	437.6	446.3	466.8	488.2	494.0
42.5°	416.6	425.0	447.2	468.9	476.9
45°	391.5	403.3	426.3	450.1	458.5
47.5°	368.5	380.2	406.6	432.1	439.6
50°	345.5	358.1	385.7	412.0	419.6
52.5°	321.7	335.1	364.8	391.1	399.9
55°	296.6	312.1	343.0	369.8	377.7
57.5°	272.7	288.6	321.7	348.9	356.8
60°	249.3	265.6	299.5	325.4	333.8
62.5°	223.4	242.6	277.8	303.3	309.5
65°	200.0	219.6	253.9	279.4	286.5
67.5°	175.3	196.6	230.9	254.3	261.0
70°	151.8	174.0	207.1	228.8	231.7
72.5°	126.7	149.3	182.8	196.6	196.6
75°	104.2	127.2	158.1	160.6	158.5
77.5°	79.5	105.0	125.1	120.1	115.0
80°	57.3	82.4	91.6	82.4	75.7
82.5°	38.5	59.8	55.2	43.9	38.9
85°	21.3	31.8	21.8	12.1	8.8
87.5°	7.9	7.1	2.1	2.1	2.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)