

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: P307547

Luminaire Tested: **14FCZ2-20-UNV-L82765-CP187-W2A-U-2700K**

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: P307547
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-2700K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.187" POLYCARB SHEET
Light Source: (168) 2700K 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: 1725.0 lumens
Efficiency: N/A
Efficacy: 104.5 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

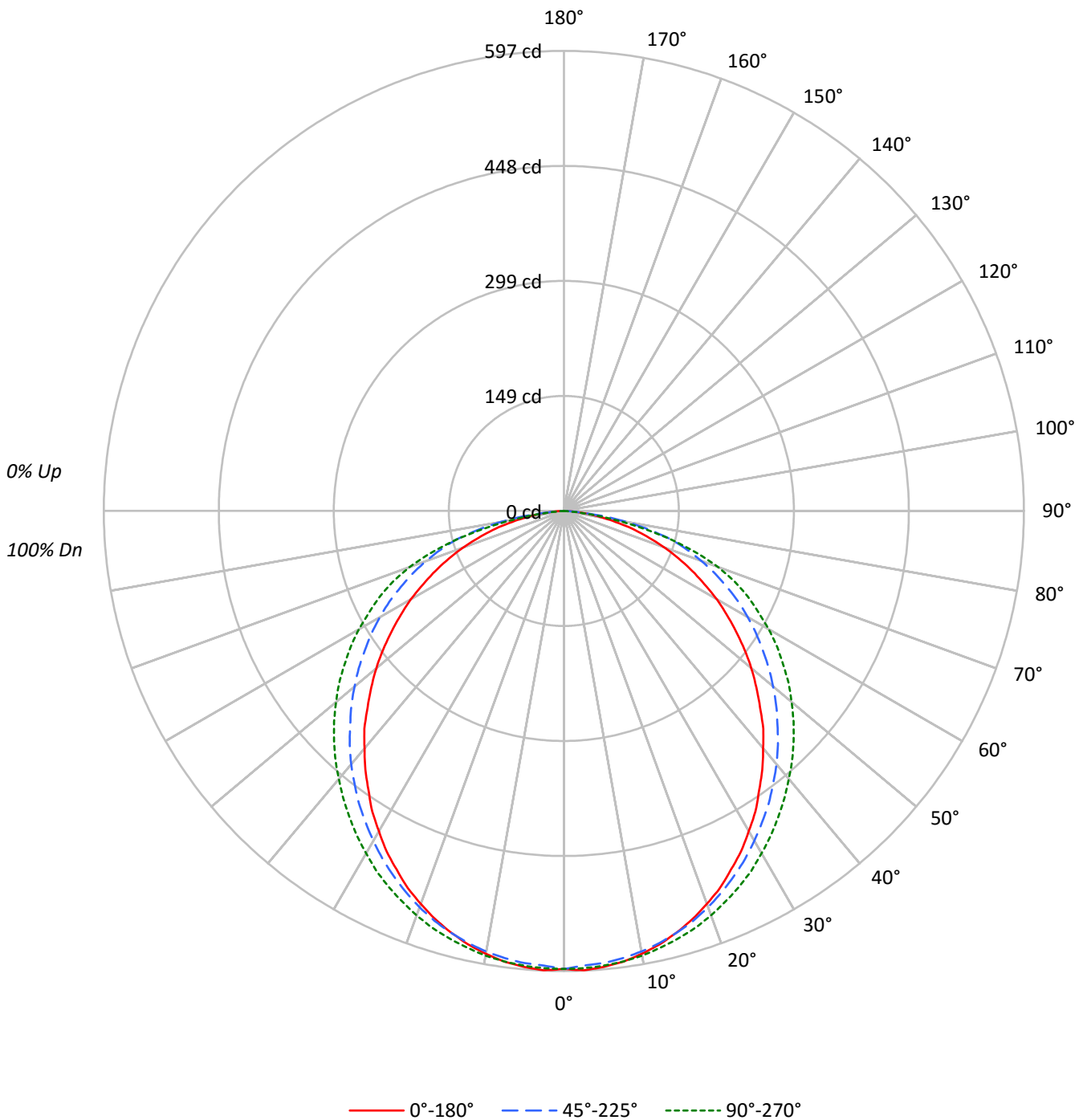
Input Watts (W): 16.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1599	1599	1599
5°	1604	1591	1600
10°	1594	1586	1601
15°	1577	1578	1600
20°	1554	1567	1599
25°	1525	1552	1598
30°	1491	1536	1594
35°	1452	1523	1593
40°	1413	1508	1596
45°	1370	1491	1604
50°	1330	1485	1615
55°	1279	1480	1629
60°	1234	1482	1652
65°	1171	1487	1678
70°	1098	1498	1677
75°	996	1512	1516
80°	817	1305	1079
85°	605	618	250



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.2	3.3
10°-20°	160.6	9.3
20°-30°	242.0	14.0
30°-40°	290.4	16.8
40°-50°	302.7	17.5
50°-60°	280.2	16.2
60°-70°	226.4	13.1
70°-80°	138.0	8.0
80°-90°	28.5	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°	458.9	26.6
0°-40°	749.2	43.4
0°-60°	1332.1	77.2
0°-90°	1725.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1725.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	594	594	594	594	594	
5°	594	592	589	593	592	56
15°	566	567	567	574	574	160
25°	514	517	523	536	538	237
35°	442	449	464	480	485	277
45°	360	371	392	414	422	278
55°	273	287	315	340	347	244
65°	184	202	234	257	264	182
75°	96	117	145	148	146	101
85°	20	29	20	11	8	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	594.3	594.3	594.3	594.3	594.3
2.5°	596.6	594.7	590.4	594.7	593.9
5°	593.9	592.3	588.9	593.1	592.3
7.5°	590.0	588.5	585.4	590.4	589.7
10°	583.5	582.7	580.4	586.2	585.8
12.5°	575.8	575.4	574.3	580.8	580.4
15°	566.2	566.6	566.6	574.3	574.3
17.5°	555.4	556.2	557.7	566.2	567.3
20°	542.7	544.3	547.3	557.0	558.5
22.5°	529.6	530.8	535.4	547.0	548.5
25°	513.5	516.6	522.7	535.8	538.1
27.5°	498.1	500.8	509.3	522.7	526.6
30°	480.0	484.3	494.3	508.9	513.1
32.5°	462.7	467.3	478.9	495.8	499.6
35°	442.0	448.9	463.5	480.4	485.0
37.5°	423.1	429.6	446.2	464.6	470.0
40°	402.3	410.4	429.3	448.9	454.3
42.5°	383.1	390.8	411.2	431.2	438.5
45°	360.0	370.8	391.9	413.9	421.6
47.5°	338.9	349.6	373.9	397.3	404.3
50°	317.7	329.3	354.6	378.9	385.8
52.5°	295.8	308.1	335.4	359.6	367.7
55°	272.7	286.9	315.4	340.0	347.3
57.5°	250.8	265.4	295.8	320.8	328.1
60°	229.2	244.2	275.4	299.2	306.9
62.5°	205.4	223.1	255.4	278.9	284.6
65°	183.9	201.9	233.5	256.9	263.5
67.5°	161.2	180.8	212.3	233.9	240.0
70°	139.6	160.0	190.4	210.4	213.1
72.5°	116.5	137.3	168.1	180.8	180.8
75°	95.8	116.9	145.4	147.7	145.8
77.5°	73.1	96.5	115.0	110.4	105.8
80°	52.7	75.8	84.2	75.8	69.6
82.5°	35.4	55.0	50.8	40.4	35.8
85°	19.6	29.2	20.0	11.2	8.1
87.5°	7.3	6.5	1.9	1.9	1.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)