

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: P307368

Luminaire Tested: **14FCZ2-29-UNV-L82765-RDP-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: P307368
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-43)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-29-UNV-L82765-RDP-CP187-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 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: 1589.0 lumens
Efficiency: N/A
Efficacy: 67.3 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.28 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

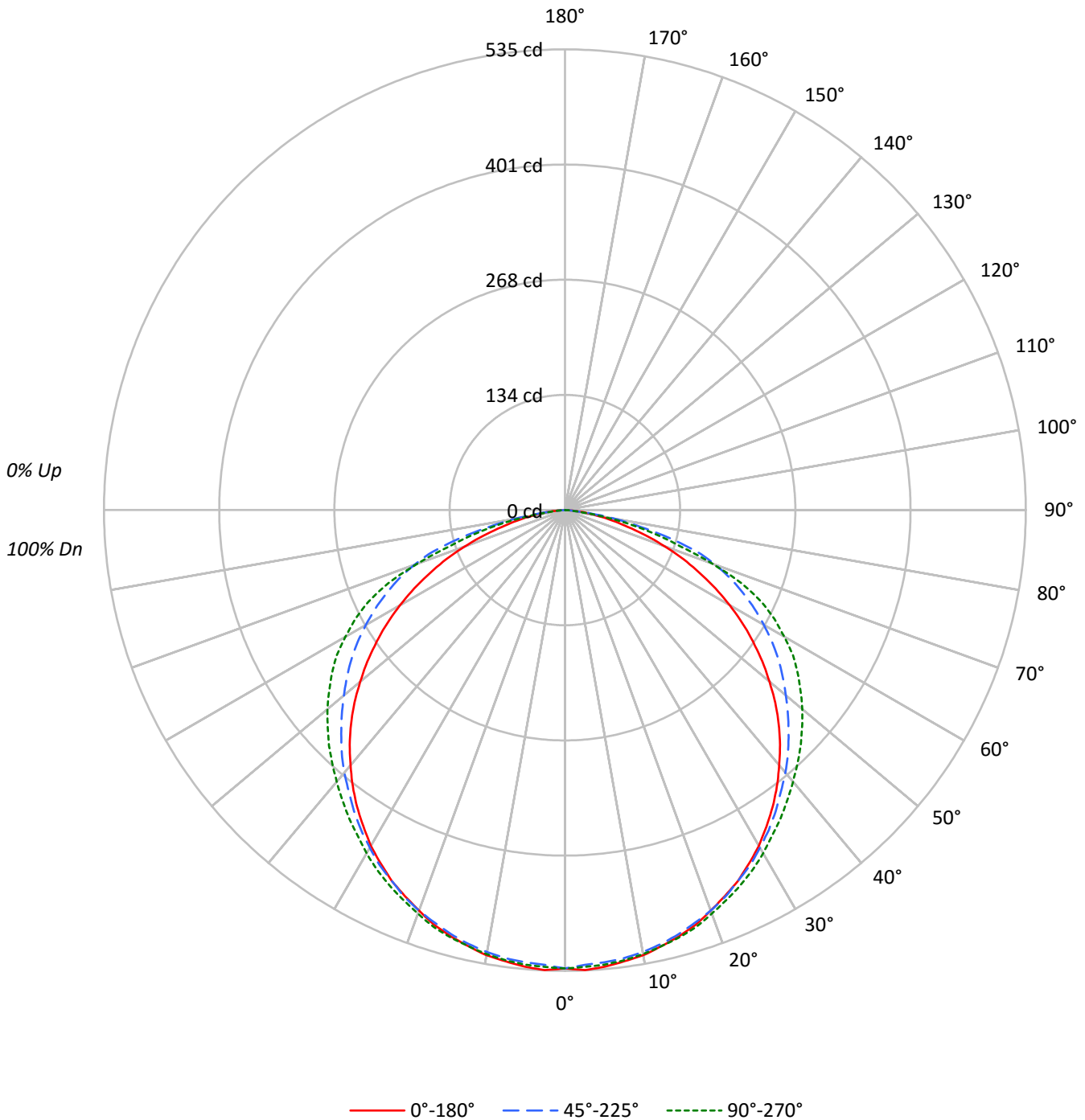
Input Watts (W): 23.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	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	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1432	1432	1432
5°	1438	1424	1431
10°	1434	1424	1430
15°	1427	1421	1431
20°	1418	1418	1428
25°	1411	1411	1429
30°	1399	1407	1430
35°	1381	1402	1435
40°	1360	1399	1447
45°	1336	1397	1473
50°	1298	1402	1506
55°	1251	1420	1548
60°	1188	1435	1582
65°	1098	1454	1603
70°	976	1464	1435
75°	787	1315	1148
80°	615	922	750
85°	420	269	191



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.4	3.2
10°-20°	144.5	9.1
20°-30°	220.1	13.8
30°-40°	268.0	16.9
40°-50°	284.4	17.9
50°-60°	268.4	16.9
60°-70°	216.7	13.6
70°-80°	117.5	7.4
80°-90°	19.0	1.2
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°	415.0	26.1
0°-40°	683.0	43.0
0°-60°	1235.7	77.8
0°-90°	1589.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1589.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	532	532	532	532	532	
5°	532	531	527	531	530	51
15°	512	511	510	514	514	145
25°	475	474	475	480	481	219
35°	420	423	427	435	437	263
45°	351	356	367	381	387	270
55°	267	278	303	322	330	238
65°	172	194	228	247	252	171
75°	76	110	126	114	110	83
85°	14	15	9	7	6	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	532.2	532.2	532.2	532.2	532.2
2.5°	534.7	532.2	528.5	532.2	531.0
5°	532.2	531.0	527.2	531.0	529.7
7.5°	528.5	528.5	524.8	527.2	527.2
10°	524.8	523.5	521.0	524.8	523.5
12.5°	518.6	517.3	516.1	519.8	518.6
15°	512.3	511.1	509.9	513.6	513.6
17.5°	504.9	503.7	502.4	507.4	507.4
20°	495.0	495.0	495.0	499.9	498.7
22.5°	485.1	485.1	486.3	491.3	490.0
25°	475.1	473.9	475.1	480.1	481.3
27.5°	462.7	464.0	465.2	470.2	471.4
30°	450.3	451.6	452.8	459.0	460.2
32.5°	435.4	437.9	440.4	447.8	447.8
35°	420.5	423.0	426.7	435.4	436.7
37.5°	404.4	406.9	411.9	421.8	424.3
40°	387.1	390.8	398.2	408.1	411.9
42.5°	369.7	374.6	383.3	394.5	399.5
45°	351.1	356.0	367.2	380.8	387.1
47.5°	331.2	337.4	351.1	368.4	373.4
50°	310.1	318.8	334.9	353.6	359.8
52.5°	289.0	299.0	318.8	338.7	344.9
55°	266.7	277.9	302.7	322.5	330.0
57.5°	244.4	256.8	285.3	306.4	313.9
60°	220.8	235.7	266.7	287.8	294.0
62.5°	197.2	214.6	248.1	269.2	274.2
65°	172.4	193.5	228.3	246.9	251.8
67.5°	148.9	173.7	208.4	222.1	222.1
70°	124.1	151.3	186.1	189.8	182.4
72.5°	99.2	130.3	161.3	147.6	141.4
75°	75.7	110.4	126.5	114.1	110.4
77.5°	57.1	89.3	89.3	81.9	79.4
80°	39.7	68.2	59.5	52.1	48.4
82.5°	26.1	38.5	31.0	24.8	21.1
85°	13.6	14.9	8.7	7.4	6.2
87.5°	5.0	2.5	1.2	2.5	1.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)