

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: P308048

Luminaire Tested: **14FCZ2-44-UNV-L82765-S-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: P308048
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-44-UNV-L82765-S-CP187-W2A-U-5500K
Description: 1'X4' TROFFER LED MODULE,SMOOTH 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: 4086.0 lumens
Efficiency: N/A
Efficacy: 103.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

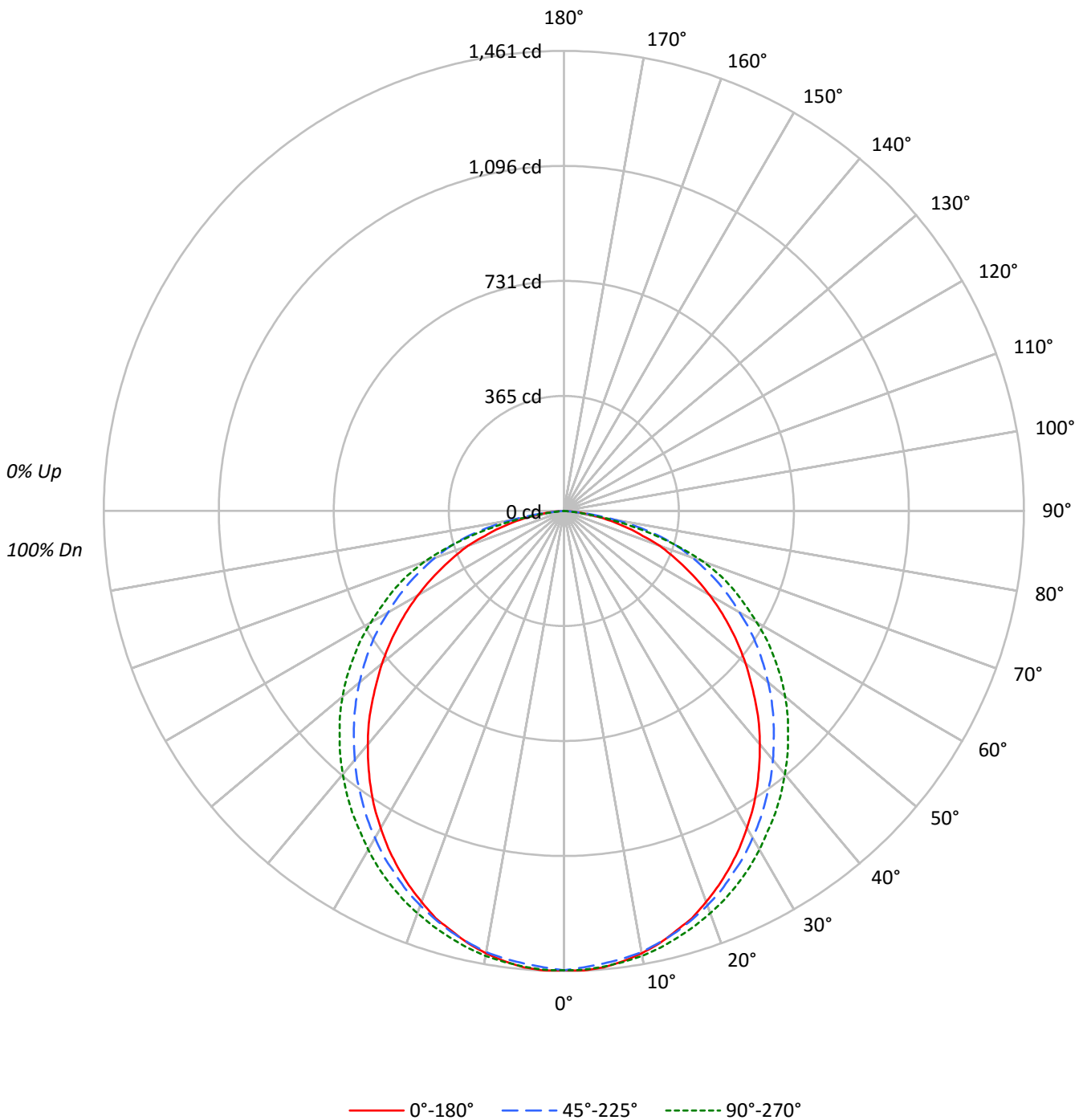
Input Watts (W): 39.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3925	3925	3925
5°	3929	3896	3924
10°	3897	3886	3919
15°	3843	3855	3906
20°	3783	3817	3893
25°	3705	3771	3880
30°	3613	3727	3859
35°	3514	3674	3847
40°	3402	3629	3836
45°	3277	3585	3832
50°	3155	3545	3842
55°	3022	3517	3830
60°	2878	3467	3805
65°	2709	3457	3805
70°	2550	3427	3698
75°	2211	3349	3160
80°	1790	2700	2103
85°	1189	939	627



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.7	3.4
10°-20°	391.9	9.6
20°-30°	587.9	14.4
30°-40°	701.3	17.2
40°-50°	725.0	17.7
50°-60°	662.0	16.2
60°-70°	520.9	12.7
70°-80°	303.2	7.4
80°-90°	55.9	1.4
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°	1117.6	27.4
0°-40°	1818.9	44.5
0°-60°	3205.9	78.5
0°-90°	4086.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4086.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1459	1459	1459	1459	1459	
5°	1455	1450	1442	1455	1453	138
15°	1380	1382	1384	1402	1402	389
25°	1248	1254	1270	1301	1307	575
35°	1070	1084	1118	1161	1171	669
45°	861	889	942	995	1007	665
55°	644	679	750	804	816	576
65°	425	470	543	586	598	422
75°	213	263	322	316	304	226
85°	38	55	30	24	20	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1458.6	1458.6	1458.6	1458.6	1458.6
2.5°	1460.7	1456.6	1450.5	1460.7	1458.6
5°	1454.6	1450.5	1442.4	1454.6	1452.6
7.5°	1442.4	1438.4	1434.3	1446.5	1444.5
10°	1426.2	1424.2	1422.2	1436.3	1434.3
12.5°	1406.0	1406.0	1403.9	1420.1	1420.1
15°	1379.6	1381.7	1383.7	1401.9	1401.9
17.5°	1355.3	1353.3	1359.4	1379.6	1381.7
20°	1320.9	1324.9	1333.0	1357.3	1359.4
22.5°	1286.4	1290.5	1304.7	1329.0	1335.1
25°	1247.9	1254.0	1270.2	1300.6	1306.7
27.5°	1207.4	1215.5	1237.8	1270.2	1276.3
30°	1162.9	1175.0	1199.3	1235.8	1241.9
32.5°	1118.3	1130.4	1160.8	1197.3	1205.4
35°	1069.7	1083.8	1118.3	1160.8	1171.0
37.5°	1019.0	1037.3	1077.8	1120.3	1132.5
40°	968.4	988.6	1033.2	1077.8	1091.9
42.5°	917.7	938.0	986.6	1037.3	1051.4
45°	861.0	889.4	942.0	994.7	1006.9
47.5°	806.3	836.7	895.4	948.1	964.3
50°	753.6	784.0	846.8	901.5	917.7
52.5°	698.9	731.3	798.2	854.9	869.1
55°	644.2	678.7	749.6	804.3	816.4
57.5°	589.5	626.0	698.9	751.6	765.8
60°	534.8	573.3	644.2	696.9	707.0
62.5°	480.1	520.7	593.6	640.2	650.3
65°	425.4	470.0	542.9	585.5	597.6
67.5°	372.8	417.3	488.2	528.8	538.9
70°	324.1	364.7	435.6	466.0	470.0
72.5°	263.4	314.0	382.9	399.1	389.0
75°	212.7	263.4	322.1	316.0	303.9
77.5°	162.1	212.7	251.2	231.0	214.7
80°	115.5	166.1	174.2	143.8	135.7
82.5°	75.0	115.5	97.2	75.0	60.8
85°	38.5	54.7	30.4	24.3	20.3
87.5°	12.2	8.1	4.1	4.1	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)