

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: P307278

Luminaire Tested: **14FCZ2-20-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: P307278
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: 14FCZ2-20-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: 1139.0 lumens
Efficiency: N/A
Efficacy: 69.5 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

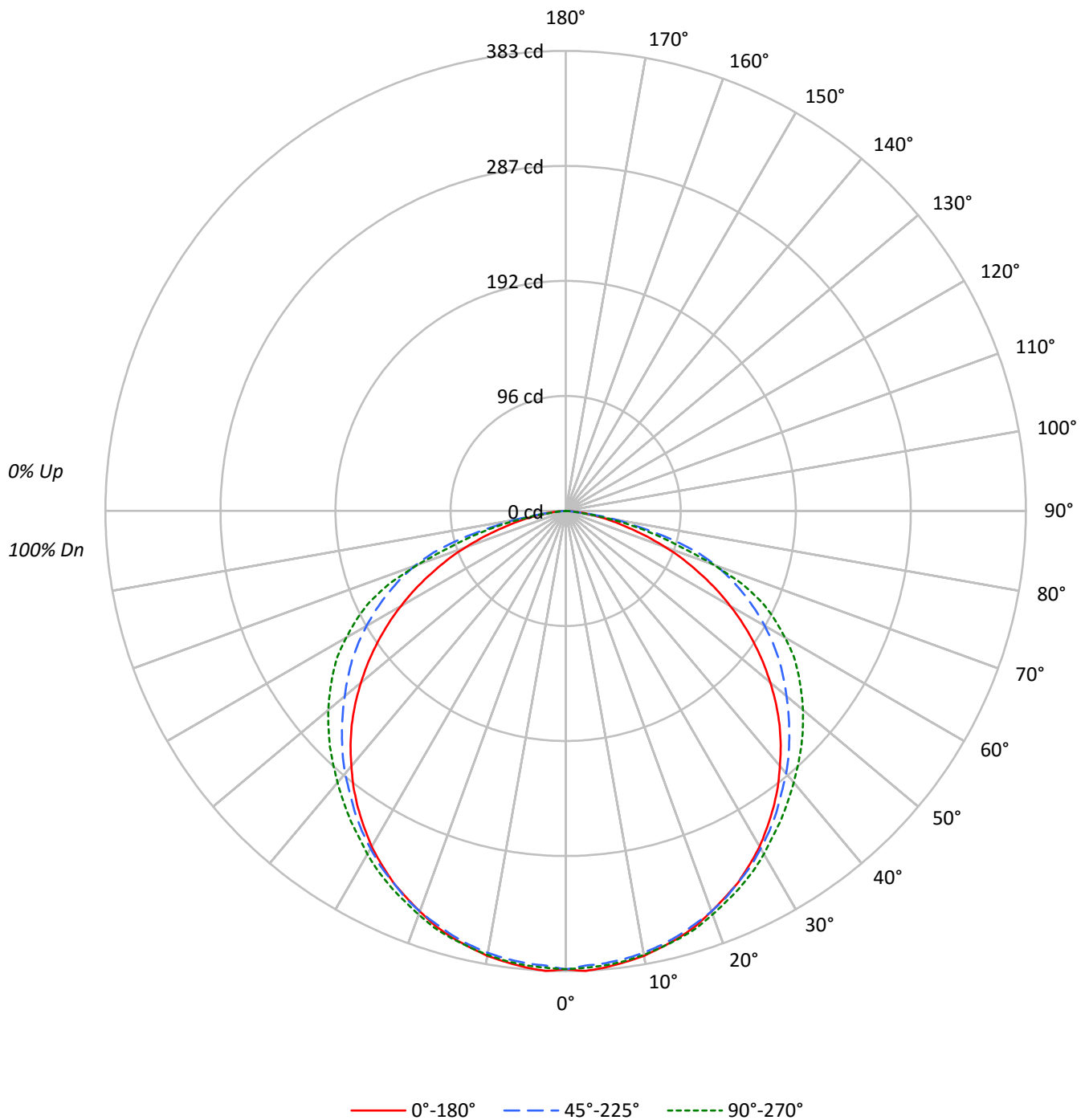
Input Watts (W): 16.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	109	104	100	96	106	102	98	94	97	94	91		93	91	88		84
2	99	90	83	77	96	88	82	76	85	79	75		81	77	73		69
3	90	79	71	64	87	77	70	63	74	68	62		71	66	61		58
4	82	70	61	54	80	68	60	53	66	58	53		63	57	52		49
5	75	62	53	46	73	61	52	46	59	51	45		57	50	45		42
6	69	56	47	40	67	55	46	40	53	45	40		51	44	39		37
7	64	50	42	35	62	50	41	35	48	40	35		47	40	35		32
8	60	46	37	31	58	45	37	31	44	36	31		43	36	31		29
9	56	42	34	28	54	42	34	28	40	33	28		39	33	28		26
10	52	39	31	25	51	38	31	25	37	30	25		36	30	25		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1027	1027	1027
5°	1031	1021	1026
10°	1028	1021	1026
15°	1023	1018	1025
20°	1016	1016	1024
25°	1011	1011	1024
30°	1003	1009	1025
35°	990	1005	1028
40°	974	1003	1037
45°	958	1002	1056
50°	931	1005	1080
55°	897	1018	1110
60°	852	1029	1134
65°	787	1042	1149
70°	699	1050	1028
75°	564	943	822
80°	442	662	538
85°	303	191	136



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.1	3.2
10°-20°	103.6	9.1
20°-30°	157.7	13.8
30°-40°	192.1	16.9
40°-50°	203.8	17.9
50°-60°	192.4	16.9
60°-70°	155.3	13.6
70°-80°	84.3	7.4
80°-90°	13.6	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°	297.4	26.1
0°-40°	489.6	43.0
0°-60°	885.8	77.8
0°-90°	1139.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1139.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	382	382	382	382	382	
5°	382	381	378	381	380	36
15°	367	366	366	368	368	104
25°	341	340	341	344	345	157
35°	301	303	306	312	313	188
45°	252	255	263	273	277	194
55°	191	199	217	231	236	171
65°	124	139	164	177	180	122
75°	54	79	91	82	79	59
85°	10	11	6	5	4	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	381.5	381.5	381.5	381.5	381.5
2.5°	383.3	381.5	378.8	381.5	380.6
5°	381.5	380.6	377.9	380.6	379.7
7.5°	378.8	378.8	376.1	377.9	377.9
10°	376.1	375.3	373.5	376.1	375.3
12.5°	371.7	370.8	369.9	372.6	371.7
15°	367.3	366.4	365.5	368.1	368.1
17.5°	361.9	361.0	360.1	363.7	363.7
20°	354.8	354.8	354.8	358.4	357.5
22.5°	347.7	347.7	348.6	352.1	351.2
25°	340.6	339.7	340.6	344.1	345.0
27.5°	331.7	332.6	333.5	337.0	337.9
30°	322.8	323.7	324.6	329.0	329.9
32.5°	312.1	313.9	315.7	321.0	321.0
35°	301.4	303.2	305.9	312.1	313.0
37.5°	289.9	291.7	295.2	302.3	304.1
40°	277.4	280.1	285.4	292.6	295.2
42.5°	265.0	268.5	274.8	282.8	286.3
45°	251.7	255.2	263.2	273.0	277.4
47.5°	237.4	241.9	251.7	264.1	267.7
50°	222.3	228.5	240.1	253.4	257.9
52.5°	207.2	214.3	228.5	242.8	247.2
55°	191.2	199.2	217.0	231.2	236.5
57.5°	175.2	184.1	204.5	219.6	225.0
60°	158.3	169.0	191.2	206.3	210.7
62.5°	141.4	153.8	177.8	193.0	196.5
65°	123.6	138.7	163.6	177.0	180.5
67.5°	106.7	124.5	149.4	159.2	159.2
70°	88.9	108.5	133.4	136.1	130.7
72.5°	71.1	93.4	115.6	105.8	101.4
75°	54.2	79.1	90.7	81.8	79.1
77.5°	40.9	64.0	64.0	58.7	56.9
80°	28.5	48.9	42.7	37.3	34.7
82.5°	18.7	27.6	22.2	17.8	15.1
85°	9.8	10.7	6.2	5.3	4.4
87.5°	3.6	1.8	0.9	1.8	0.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)