

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: P307281

Luminaire Tested: **14FCZ2-20-UNV-L82765-RDP-CP187-W2A-U-4500K**

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: P307281
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-4500K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.187" POLYCARB SHEET
Light Source: (168) 4500K 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: 1225.0 lumens
Efficiency: N/A
Efficacy: 72.9 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

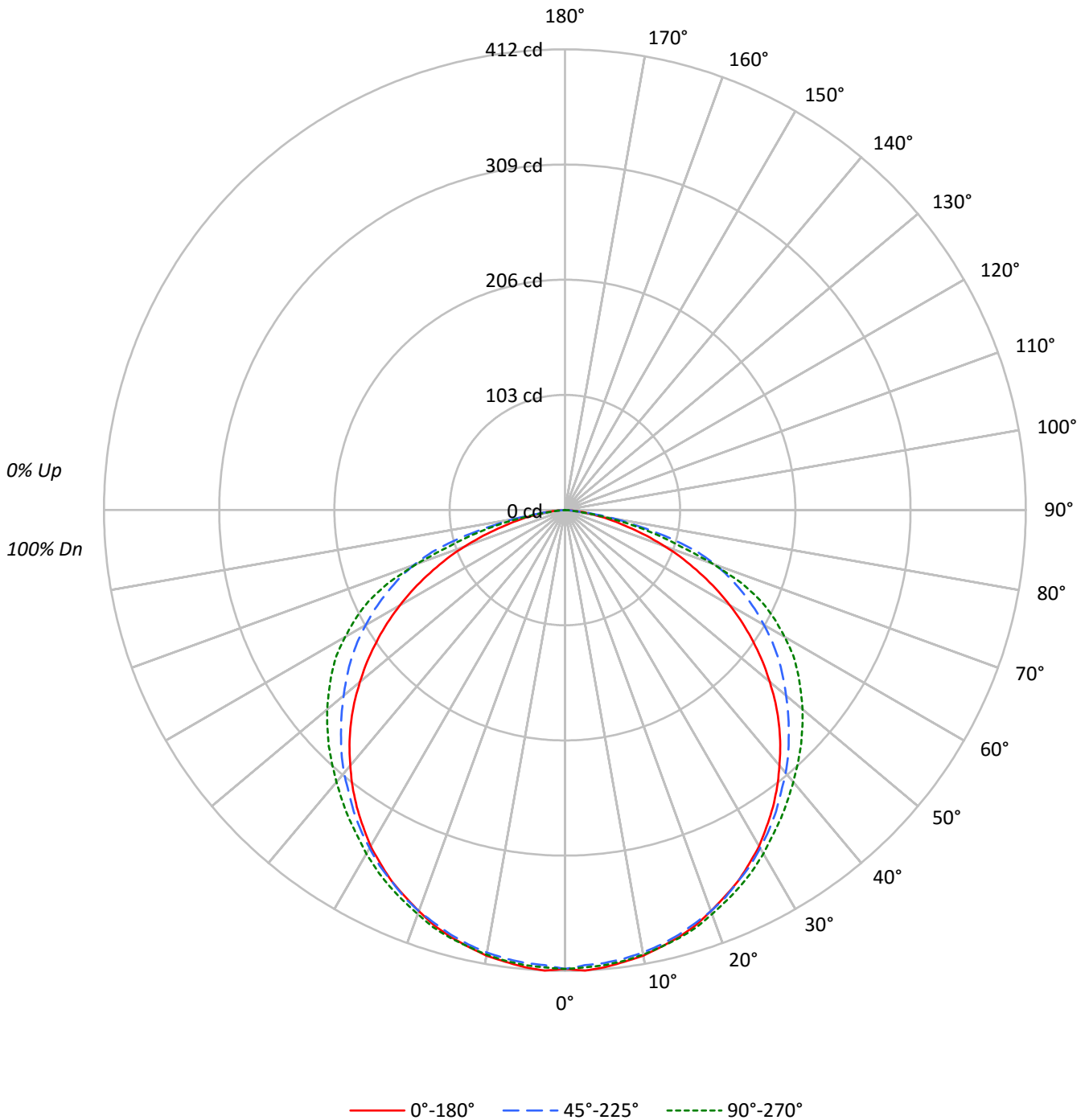
Input Watts (W): 16.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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CATALOG NUMBER: 14FC22-20-UNV-L82765-RDP-CP187-W2A-U-4500K

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°	1104	1104	1104
5°	1108	1098	1103
10°	1105	1098	1103
15°	1100	1095	1103
20°	1093	1093	1101
25°	1088	1088	1102
30°	1079	1085	1102
35°	1065	1081	1106
40°	1048	1078	1115
45°	1030	1077	1136
50°	1001	1081	1161
55°	965	1095	1194
60°	916	1107	1220
65°	846	1121	1236
70°	752	1129	1106
75°	606	1014	885
80°	474	711	578
85°	324	207	148



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.8	3.2
10°-20°	111.4	9.1
20°-30°	169.6	13.8
30°-40°	206.6	16.9
40°-50°	219.2	17.9
50°-60°	206.9	16.9
60°-70°	167.1	13.6
70°-80°	90.6	7.4
80°-90°	14.7	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°	319.9	26.1
0°-40°	526.5	43.0
0°-60°	952.7	77.8
0°-90°	1225.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1225.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	410	410	410	410	410	
5°	410	409	406	409	408	39
15°	395	394	393	396	396	111
25°	366	365	366	370	371	169
35°	324	326	329	336	337	203
45°	271	274	283	294	298	208
55°	206	214	233	249	254	184
65°	133	149	176	190	194	132
75°	58	85	98	88	85	64
85°	10	12	7	6	5	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	410.3	410.3	410.3	410.3	410.3
2.5°	412.2	410.3	407.4	410.3	409.3
5°	410.3	409.3	406.5	409.3	408.4
7.5°	407.4	407.4	404.5	406.5	406.5
10°	404.5	403.6	401.7	404.5	403.6
12.5°	399.8	398.8	397.9	400.7	399.8
15°	395.0	394.0	393.1	395.9	395.9
17.5°	389.2	388.3	387.3	391.2	391.2
20°	381.6	381.6	381.6	385.4	384.5
22.5°	373.9	373.9	374.9	378.7	377.8
25°	366.3	365.3	366.3	370.1	371.1
27.5°	356.7	357.7	358.6	362.5	363.4
30°	347.2	348.1	349.1	353.9	354.8
32.5°	335.7	337.6	339.5	345.3	345.3
35°	324.2	326.1	329.0	335.7	336.6
37.5°	311.8	313.7	317.5	325.2	327.1
40°	298.4	301.3	307.0	314.6	317.5
42.5°	285.0	288.8	295.5	304.1	308.0
45°	270.7	274.5	283.1	293.6	298.4
47.5°	255.4	260.1	270.7	284.0	287.9
50°	239.1	245.8	258.2	272.6	277.3
52.5°	222.8	230.5	245.8	261.1	265.9
55°	205.6	214.2	233.4	248.7	254.4
57.5°	188.4	198.0	220.0	236.2	242.0
60°	170.2	181.7	205.6	221.9	226.7
62.5°	152.1	165.5	191.3	207.5	211.4
65°	132.9	149.2	176.0	190.3	194.1
67.5°	114.8	133.9	160.7	171.2	171.2
70°	95.6	116.7	143.5	146.3	140.6
72.5°	76.5	100.4	124.3	113.8	109.0
75°	58.3	85.1	97.5	88.0	85.1
77.5°	44.0	68.9	68.9	63.1	61.2
80°	30.6	52.6	45.9	40.2	37.3
82.5°	20.1	29.6	23.9	19.1	16.3
85°	10.5	11.5	6.7	5.7	4.8
87.5°	3.8	1.9	1.0	1.9	1.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)