

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: P307279

Luminaire Tested: **14FCZ2-20-UNV-L82765-RDP-CP187-W2A-U-3500K**

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: P307279
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-3500K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.187" POLYCARB SHEET
Light Source: (168) 3500K 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: 1178.0 lumens
Efficiency: N/A
Efficacy: 71.0 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

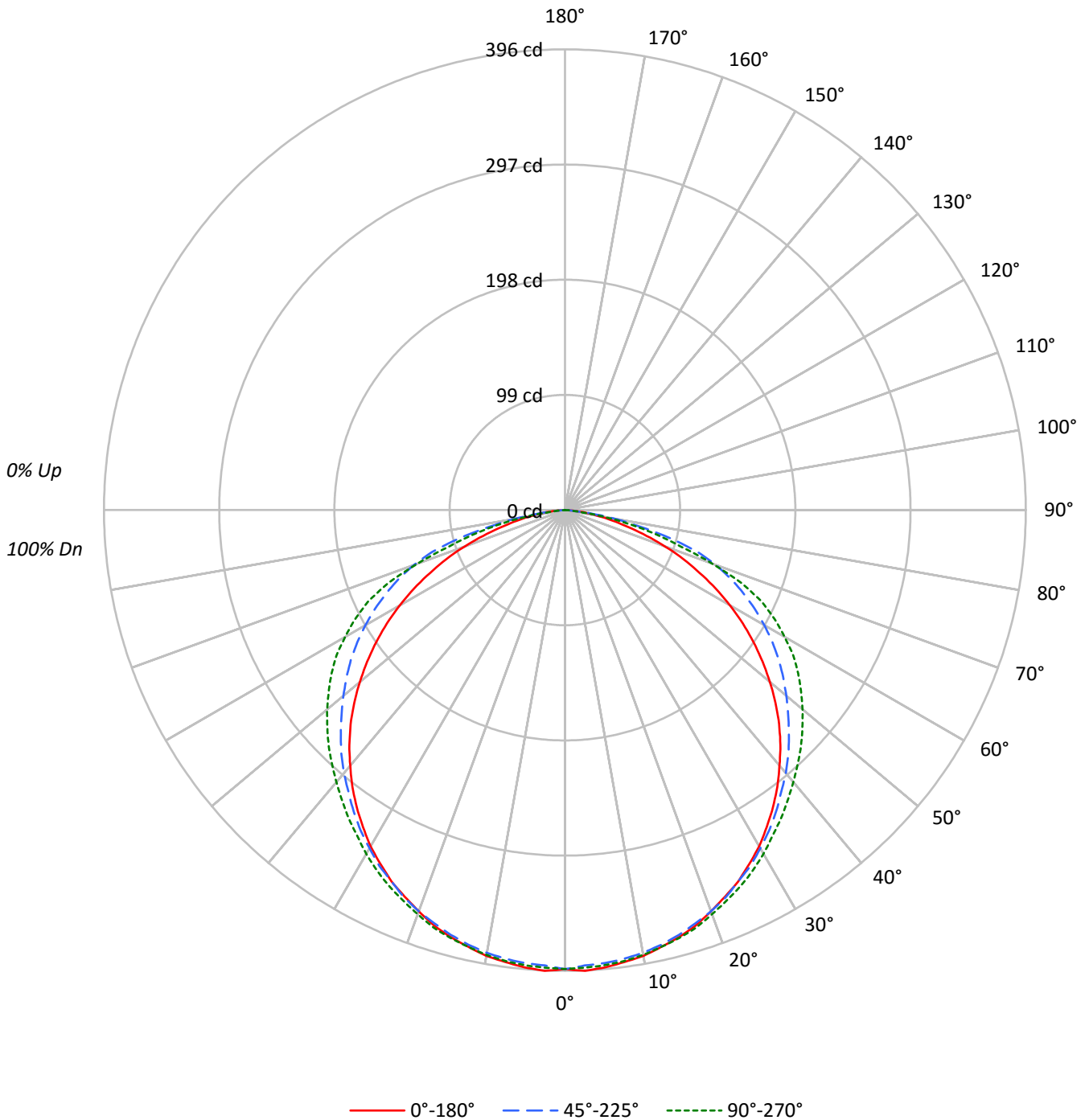
Input Watts (W): 16.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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CATALOG NUMBER: 14FC22-20-UNV-L82765-RDP-CP187-W2A-U-3500K

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°	1062	1062	1062
5°	1066	1056	1061
10°	1063	1056	1060
15°	1058	1053	1061
20°	1051	1051	1059
25°	1046	1046	1059
30°	1037	1043	1060
35°	1024	1039	1063
40°	1008	1037	1072
45°	991	1036	1092
50°	962	1039	1117
55°	928	1053	1148
60°	881	1064	1173
65°	814	1077	1189
70°	724	1086	1064
75°	583	975	852
80°	456	683	556
85°	312	198	142



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.3	3.2
10°-20°	107.1	9.1
20°-30°	163.1	13.8
30°-40°	198.7	16.9
40°-50°	210.8	17.9
50°-60°	199.0	16.9
60°-70°	160.6	13.6
70°-80°	87.1	7.4
80°-90°	14.1	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°	307.6	26.1
0°-40°	506.3	43.0
0°-60°	916.1	77.8
0°-90°	1178.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1178.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	394	394	394	394	394	
5°	394	394	391	394	393	37
15°	380	379	378	381	381	107
25°	352	351	352	356	357	162
35°	312	314	316	323	324	195
45°	260	264	272	282	287	200
55°	198	206	224	239	245	177
65°	128	144	169	183	187	127
75°	56	82	94	85	82	61
85°	10	11	6	6	5	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	394.5	394.5	394.5	394.5	394.5
2.5°	396.4	394.5	391.8	394.5	393.6
5°	394.5	393.6	390.9	393.6	392.7
7.5°	391.8	391.8	389.0	390.9	390.9
10°	389.0	388.1	386.3	389.0	388.1
12.5°	384.4	383.5	382.6	385.3	384.4
15°	379.8	378.9	378.0	380.7	380.7
17.5°	374.3	373.4	372.5	376.1	376.1
20°	367.0	367.0	367.0	370.6	369.7
22.5°	359.6	359.6	360.5	364.2	363.3
25°	352.2	351.3	352.2	355.9	356.8
27.5°	343.0	344.0	344.9	348.6	349.5
30°	333.8	334.8	335.7	340.3	341.2
32.5°	322.8	324.6	326.5	332.0	332.0
35°	311.8	313.6	316.4	322.8	323.7
37.5°	299.8	301.7	305.3	312.7	314.5
40°	286.9	289.7	295.2	302.6	305.3
42.5°	274.1	277.7	284.2	292.5	296.1
45°	260.3	263.9	272.2	282.3	286.9
47.5°	245.6	250.2	260.3	273.1	276.8
50°	229.9	236.4	248.3	262.1	266.7
52.5°	214.3	221.6	236.4	251.1	255.7
55°	197.7	206.0	224.4	239.1	244.6
57.5°	181.2	190.4	211.5	227.2	232.7
60°	163.7	174.7	197.7	213.4	218.0
62.5°	146.2	159.1	183.9	199.6	203.2
65°	127.8	143.5	169.2	183.0	186.7
67.5°	110.4	128.8	154.5	164.6	164.6
70°	92.0	112.2	138.0	140.7	135.2
72.5°	73.6	96.6	119.6	109.4	104.8
75°	56.1	81.9	93.8	84.6	81.9
77.5°	42.3	66.2	66.2	60.7	58.9
80°	29.4	50.6	44.1	38.6	35.9
82.5°	19.3	28.5	23.0	18.4	15.6
85°	10.1	11.0	6.4	5.5	4.6
87.5°	3.7	1.8	0.9	1.8	0.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)