

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: P312008

Luminaire Tested: **14FCZ2-20-UNV-L83050-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: P312008
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-L83050-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: 1279.0 lumens
Efficiency: N/A
Efficacy: 73.9 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

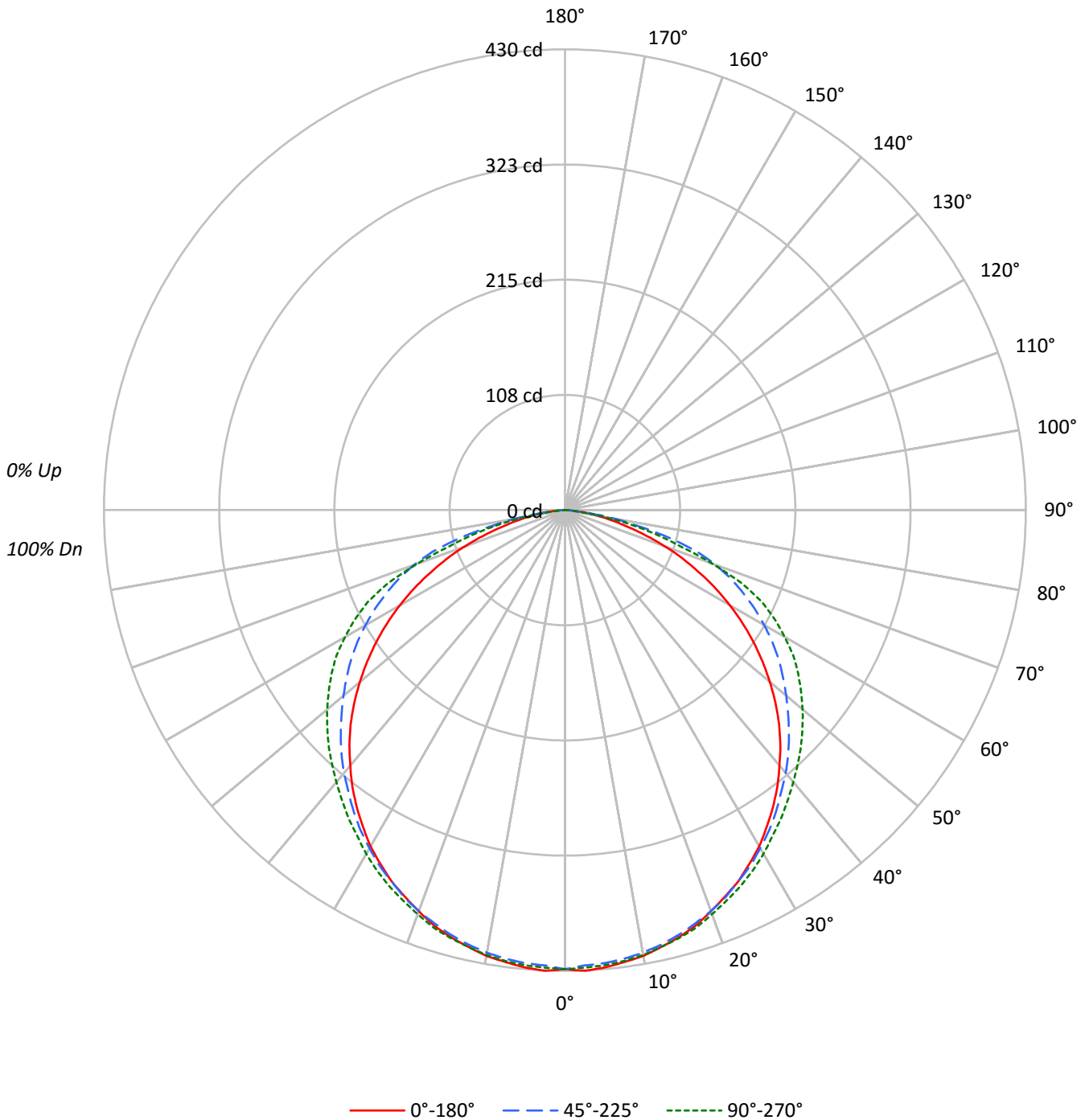
Input Watts (W): 17.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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CATALOG NUMBER: 14FC22-20-UNV-L83050-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°	1153	1153	1153
5°	1157	1146	1152
10°	1154	1146	1151
15°	1149	1143	1152
20°	1141	1141	1149
25°	1135	1135	1150
30°	1126	1133	1151
35°	1112	1128	1155
40°	1094	1126	1165
45°	1075	1125	1185
50°	1045	1129	1212
55°	1007	1143	1246
60°	956	1156	1274
65°	884	1170	1291
70°	786	1179	1155
75°	633	1059	924
80°	496	742	603
85°	340	216	154



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.5	3.2
10°-20°	116.3	9.1
20°-30°	177.1	13.8
30°-40°	215.7	16.9
40°-50°	228.9	17.9
50°-60°	216.0	16.9
60°-70°	174.4	13.6
70°-80°	94.6	7.4
80°-90°	15.3	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°	334.0	26.1
0°-40°	549.7	43.0
0°-60°	994.7	77.8
0°-90°	1279.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1279.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	428	428	428	428	428	
5°	428	427	424	427	426	41
15°	412	411	410	413	413	116
25°	382	381	382	386	387	176
35°	338	340	344	350	352	212
45°	283	287	296	306	312	218
55°	215	224	244	260	266	192
65°	139	156	184	199	203	138
75°	61	89	102	92	89	67
85°	11	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°	428.4	428.4	428.4	428.4	428.4
2.5°	430.4	428.4	425.4	428.4	427.4
5°	428.4	427.4	424.4	427.4	426.4
7.5°	425.4	425.4	422.4	424.4	424.4
10°	422.4	421.4	419.4	422.4	421.4
12.5°	417.4	416.4	415.4	418.4	417.4
15°	412.4	411.4	410.4	413.4	413.4
17.5°	406.4	405.4	404.4	408.4	408.4
20°	398.4	398.4	398.4	402.4	401.4
22.5°	390.4	390.4	391.4	395.4	394.4
25°	382.4	381.4	382.4	386.4	387.4
27.5°	372.5	373.5	374.4	378.4	379.4
30°	362.5	363.5	364.5	369.5	370.5
32.5°	350.5	352.5	354.5	360.5	360.5
35°	338.5	340.5	343.5	350.5	351.5
37.5°	325.5	327.5	331.5	339.5	341.5
40°	311.5	314.5	320.5	328.5	331.5
42.5°	297.6	301.6	308.5	317.5	321.5
45°	282.6	286.6	295.6	306.5	311.5
47.5°	266.6	271.6	282.6	296.6	300.6
50°	249.6	256.6	269.6	284.6	289.6
52.5°	232.7	240.6	256.6	272.6	277.6
55°	214.7	223.7	243.6	259.6	265.6
57.5°	196.7	206.7	229.7	246.6	252.6
60°	177.7	189.7	214.7	231.7	236.7
62.5°	158.8	172.7	199.7	216.7	220.7
65°	138.8	155.8	183.7	198.7	202.7
67.5°	119.8	139.8	167.8	178.7	178.7
70°	99.9	121.8	149.8	152.8	146.8
72.5°	79.9	104.8	129.8	118.8	113.8
75°	60.9	88.9	101.9	91.9	88.9
77.5°	45.9	71.9	71.9	65.9	63.9
80°	32.0	54.9	47.9	41.9	38.9
82.5°	21.0	31.0	25.0	20.0	17.0
85°	11.0	12.0	7.0	6.0	5.0
87.5°	4.0	2.0	1.0	2.0	1.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)