

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: P312000

Luminaire Tested: **14FCZ2-20-UNV-L83050-RDP-CP125-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: P312000
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-CP125-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.125" 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: 1190.0 lumens
Efficiency: N/A
Efficacy: 72.1 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

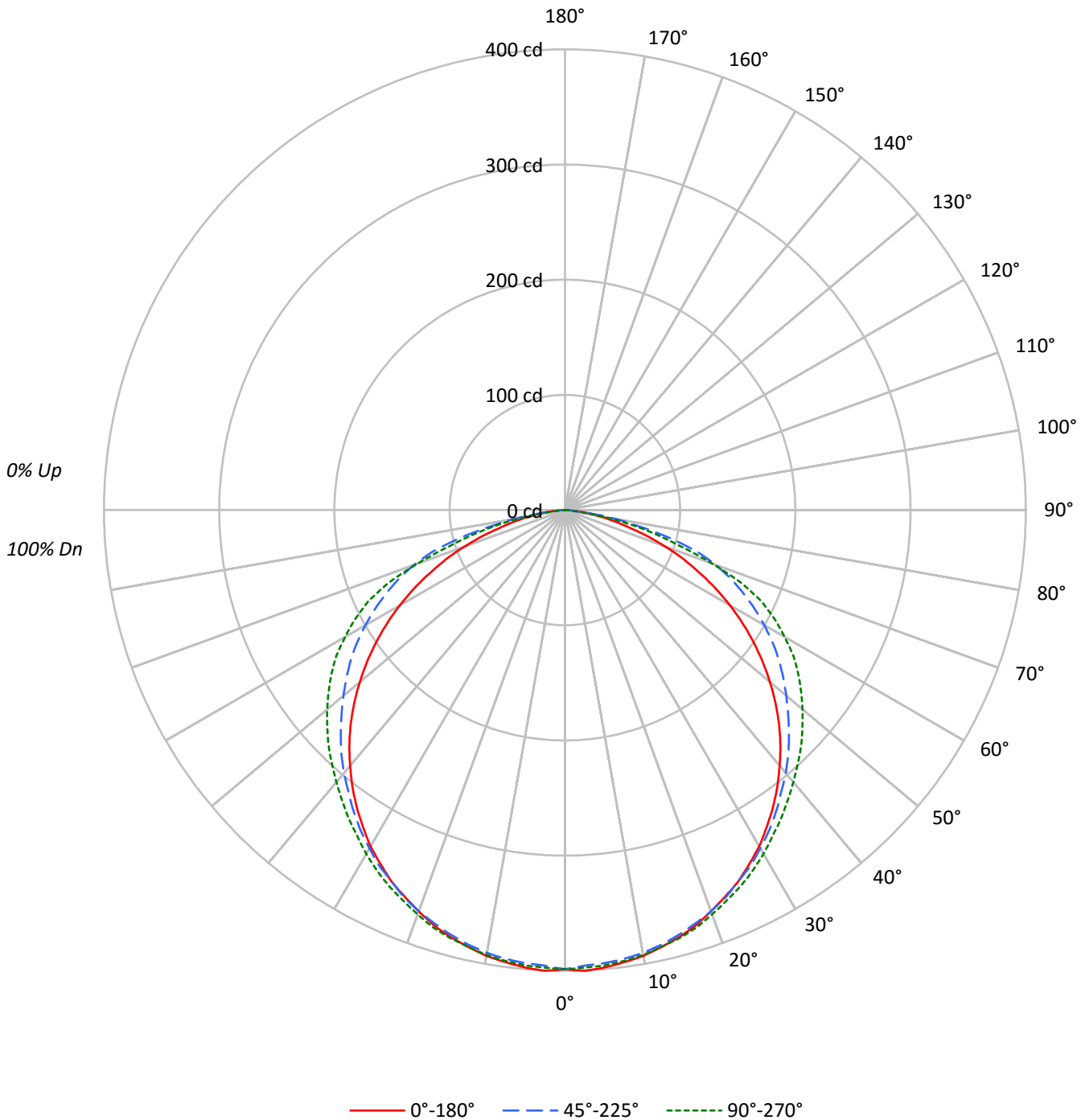
Input Watts (W): 16.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1073	1073	1073
5°	1077	1066	1072
10°	1074	1066	1071
15°	1069	1064	1071
20°	1062	1062	1070
25°	1056	1056	1070
30°	1048	1054	1071
35°	1034	1050	1074
40°	1018	1048	1083
45°	1000	1047	1103
50°	973	1050	1128
55°	937	1064	1159
60°	890	1075	1185
65°	822	1088	1201
70°	731	1097	1075
75°	590	986	860
80°	460	691	561
85°	315	201	142



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.7	3.2
10°-20°	108.2	9.1
20°-30°	164.8	13.8
30°-40°	200.7	16.9
40°-50°	213.0	17.9
50°-60°	201.0	16.9
60°-70°	162.3	13.6
70°-80°	88.0	7.4
80°-90°	14.2	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°	310.8	26.1
0°-40°	511.5	43.0
0°-60°	925.4	77.8
0°-90°	1190.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1190.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	399	399	399	399	399	
5°	399	398	395	398	397	38
15°	384	383	382	385	385	108
25°	356	355	356	360	360	164
35°	315	317	320	326	327	197
45°	263	267	275	285	290	202
55°	200	208	227	242	247	178
65°	129	145	171	185	189	128
75°	57	83	95	86	83	62
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°	398.6	398.6	398.6	398.6	398.6
2.5°	400.4	398.6	395.8	398.6	397.6
5°	398.6	397.6	394.8	397.6	396.7
7.5°	395.8	395.8	393.0	394.8	394.8
10°	393.0	392.1	390.2	393.0	392.1
12.5°	388.3	387.4	386.5	389.3	388.3
15°	383.7	382.8	381.8	384.6	384.6
17.5°	378.1	377.2	376.3	380.0	380.0
20°	370.7	370.7	370.7	374.4	373.5
22.5°	363.3	363.3	364.2	367.9	367.0
25°	355.8	354.9	355.8	359.5	360.5
27.5°	346.5	347.5	348.4	352.1	353.0
30°	337.2	338.2	339.1	343.7	344.7
32.5°	326.1	328.0	329.8	335.4	335.4
35°	314.9	316.8	319.6	326.1	327.0
37.5°	302.9	304.7	308.4	315.9	317.7
40°	289.9	292.6	298.2	305.7	308.4
42.5°	276.9	280.6	287.1	295.4	299.2
45°	262.9	266.6	275.0	285.2	289.9
47.5°	248.1	252.7	262.9	275.9	279.6
50°	232.3	238.8	250.8	264.8	269.4
52.5°	216.5	223.9	238.8	253.6	258.3
55°	199.7	208.1	226.7	241.6	247.1
57.5°	183.0	192.3	213.7	229.5	235.0
60°	165.4	176.5	199.7	215.5	220.2
62.5°	147.7	160.7	185.8	201.6	205.3
65°	129.1	144.9	170.9	184.9	188.6
67.5°	111.5	130.1	156.1	166.3	166.3
70°	92.9	113.3	139.4	142.1	136.6
72.5°	74.3	97.5	120.8	110.6	105.9
75°	56.7	82.7	94.8	85.5	82.7
77.5°	42.7	66.9	66.9	61.3	59.5
80°	29.7	51.1	44.6	39.0	36.2
82.5°	19.5	28.8	23.2	18.6	15.8
85°	10.2	11.1	6.5	5.6	4.6
87.5°	3.7	1.9	0.9	1.9	0.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)