

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: P307291

Luminaire Tested: **14FCZ2-20-UNV-L82765-RDP-CP250-W2A-U-5000K**

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: P307291
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-CP250-W2A-U-5000K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.250" POLYCARB SHEET
Light Source: (168) 5000K 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: 1232.0 lumens
Efficiency: N/A
Efficacy: 72.9 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

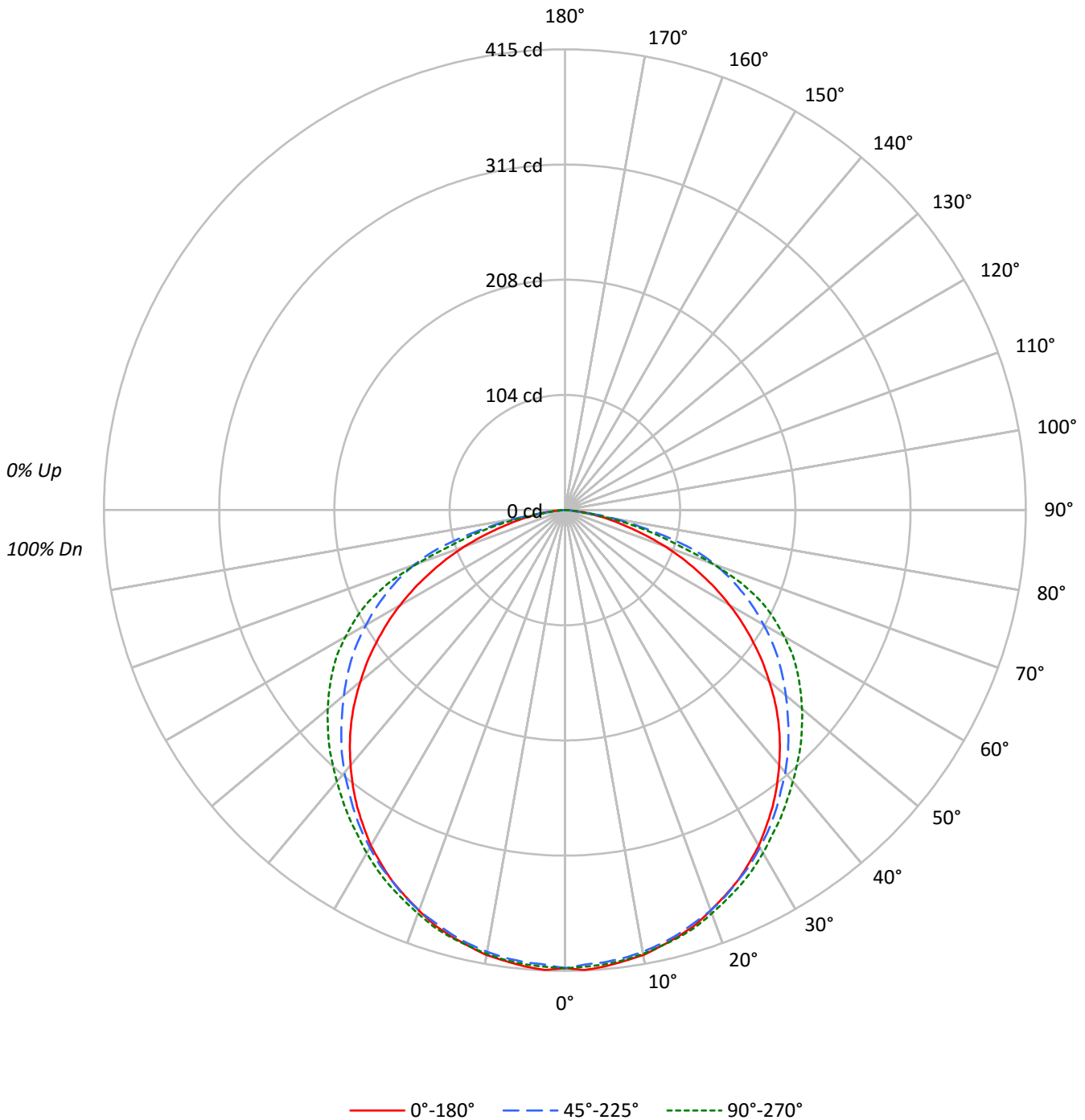
Input Watts (W): 16.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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°	1110	1110	1110
5°	1115	1104	1109
10°	1112	1104	1109
15°	1107	1101	1109
20°	1099	1099	1107
25°	1094	1094	1108
30°	1085	1091	1109
35°	1071	1087	1112
40°	1054	1084	1122
45°	1036	1083	1142
50°	1007	1087	1168
55°	970	1101	1200
60°	921	1113	1227
65°	851	1127	1244
70°	757	1135	1113
75°	610	1020	890
80°	477	716	581
85°	327	207	148



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.1	3.2
10°-20°	112.1	9.1
20°-30°	170.6	13.8
30°-40°	207.8	16.9
40°-50°	220.5	17.9
50°-60°	208.1	16.9
60°-70°	168.0	13.6
70°-80°	91.1	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°	321.7	26.1
0°-40°	529.5	43.0
0°-60°	958.1	77.8
0°-90°	1232.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1232.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	413	413	413	413	413	
5°	413	412	409	412	411	39
15°	397	396	395	398	398	112
25°	368	367	368	372	373	170
35°	326	328	331	338	339	204
45°	272	276	285	295	300	210
55°	207	216	235	250	256	185
65°	134	150	177	191	195	132
75°	59	86	98	88	86	64
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°	412.6	412.6	412.6	412.6	412.6
2.5°	414.6	412.6	409.7	412.6	411.7
5°	412.6	411.7	408.8	411.7	410.7
7.5°	409.7	409.7	406.9	408.8	408.8
10°	406.9	405.9	404.0	406.9	405.9
12.5°	402.0	401.1	400.1	403.0	402.0
15°	397.2	396.3	395.3	398.2	398.2
17.5°	391.5	390.5	389.5	393.4	393.4
20°	383.8	383.8	383.8	387.6	386.7
22.5°	376.1	376.1	377.0	380.9	379.9
25°	368.4	367.4	368.4	372.2	373.2
27.5°	358.8	359.7	360.7	364.5	365.5
30°	349.1	350.1	351.1	355.9	356.8
32.5°	337.6	339.5	341.5	347.2	347.2
35°	326.1	328.0	330.9	337.6	338.6
37.5°	313.6	315.5	319.3	327.0	328.9
40°	300.1	303.0	308.7	316.4	319.3
42.5°	286.6	290.5	297.2	305.9	309.7
45°	272.2	276.0	284.7	295.3	300.1
47.5°	256.8	261.6	272.2	285.7	289.5
50°	240.5	247.2	259.7	274.1	278.9
52.5°	224.1	231.8	247.2	262.6	267.4
55°	206.8	215.5	234.7	250.1	255.8
57.5°	189.5	199.1	221.2	237.6	243.3
60°	171.2	182.7	206.8	223.1	228.0
62.5°	152.9	166.4	192.4	208.7	212.6
65°	133.7	150.0	177.0	191.4	195.3
67.5°	115.4	134.7	161.6	172.2	172.2
70°	96.2	117.3	144.3	147.2	141.4
72.5°	76.9	101.0	125.0	114.5	109.6
75°	58.7	85.6	98.1	88.5	85.6
77.5°	44.2	69.3	69.3	63.5	61.6
80°	30.8	52.9	46.2	40.4	37.5
82.5°	20.2	29.8	24.0	19.2	16.4
85°	10.6	11.5	6.7	5.8	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)