

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: P311996

Luminaire Tested: **14FCZ2-20-UNV-L83050-RDP-CA125-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: P311996
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-CA125-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.125" ACRYLIC 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: 1285.0 lumens
Efficiency: N/A
Efficacy: 77.9 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

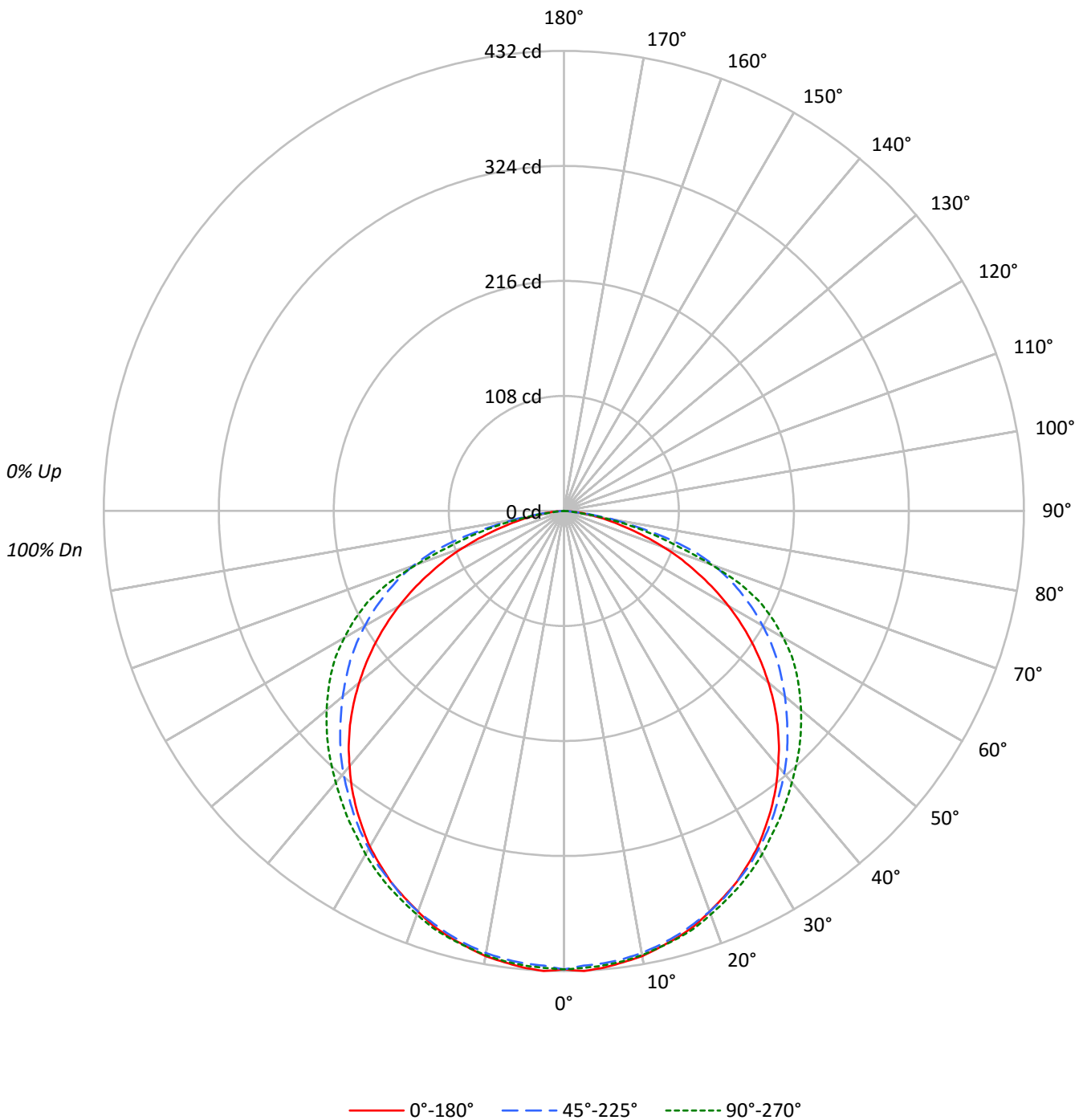
Input Watts (W): 16.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1158	1158	1158
5°	1163	1152	1157
10°	1160	1151	1157
15°	1154	1149	1157
20°	1146	1146	1155
25°	1141	1141	1156
30°	1132	1138	1157
35°	1117	1134	1160
40°	1100	1131	1170
45°	1080	1130	1191
50°	1050	1134	1218
55°	1012	1148	1252
60°	961	1161	1280
65°	888	1175	1297
70°	789	1184	1161
75°	636	1064	928
80°	497	747	606
85°	340	216	154



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.7	3.2
10°-20°	116.9	9.1
20°-30°	178.0	13.8
30°-40°	216.8	16.9
40°-50°	230.0	17.9
50°-60°	217.0	16.9
60°-70°	175.2	13.6
70°-80°	95.1	7.4
80°-90°	15.4	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°	335.6	26.1
0°-40°	552.3	43.0
0°-60°	999.3	77.8
0°-90°	1285.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1285.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	430	430	430	430	430	
5°	430	429	426	429	428	41
15°	414	413	412	415	415	117
25°	384	383	384	388	389	177
35°	340	342	345	352	353	213
45°	284	288	297	308	313	219
55°	216	225	245	261	267	193
65°	139	156	185	200	204	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°	430.4	430.4	430.4	430.4	430.4
2.5°	432.4	430.4	427.4	430.4	429.4
5°	430.4	429.4	426.4	429.4	428.4
7.5°	427.4	427.4	424.4	426.4	426.4
10°	424.4	423.4	421.4	424.4	423.4
12.5°	419.3	418.3	417.3	420.3	419.3
15°	414.3	413.3	412.3	415.3	415.3
17.5°	408.3	407.3	406.3	410.3	410.3
20°	400.3	400.3	400.3	404.3	403.3
22.5°	392.3	392.3	393.3	397.3	396.3
25°	384.2	383.2	384.2	388.2	389.2
27.5°	374.2	375.2	376.2	380.2	381.2
30°	364.2	365.2	366.2	371.2	372.2
32.5°	352.1	354.1	356.1	362.2	362.2
35°	340.1	342.1	345.1	352.1	353.1
37.5°	327.0	329.1	333.1	341.1	343.1
40°	313.0	316.0	322.0	330.1	333.1
42.5°	299.0	303.0	310.0	319.0	323.0
45°	283.9	287.9	297.0	308.0	313.0
47.5°	267.9	272.9	283.9	298.0	302.0
50°	250.8	257.8	270.9	285.9	290.9
52.5°	233.7	241.8	257.8	273.9	278.9
55°	215.7	224.7	244.8	260.8	266.9
57.5°	197.6	207.7	230.7	247.8	253.8
60°	178.6	190.6	215.7	232.7	237.8
62.5°	159.5	173.6	200.6	217.7	221.7
65°	139.4	156.5	184.6	199.6	203.7
67.5°	120.4	140.5	168.5	179.6	179.6
70°	100.3	122.4	150.5	153.5	147.5
72.5°	80.3	105.3	130.4	119.4	114.4
75°	61.2	89.3	102.3	92.3	89.3
77.5°	46.1	72.2	72.2	66.2	64.2
80°	32.1	55.2	48.2	42.1	39.1
82.5°	21.1	31.1	25.1	20.1	17.1
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)