

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: P311997

Luminaire Tested: **14FCZ2-20-UNV-L83050-RDP-CA125-W2A-U-4000K**

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: P311997
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-4000K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.125" ACRYLIC SHEET
Light Source: (168) 4000K 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: 1349.0 lumens
Efficiency: N/A
Efficacy: 79.8 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

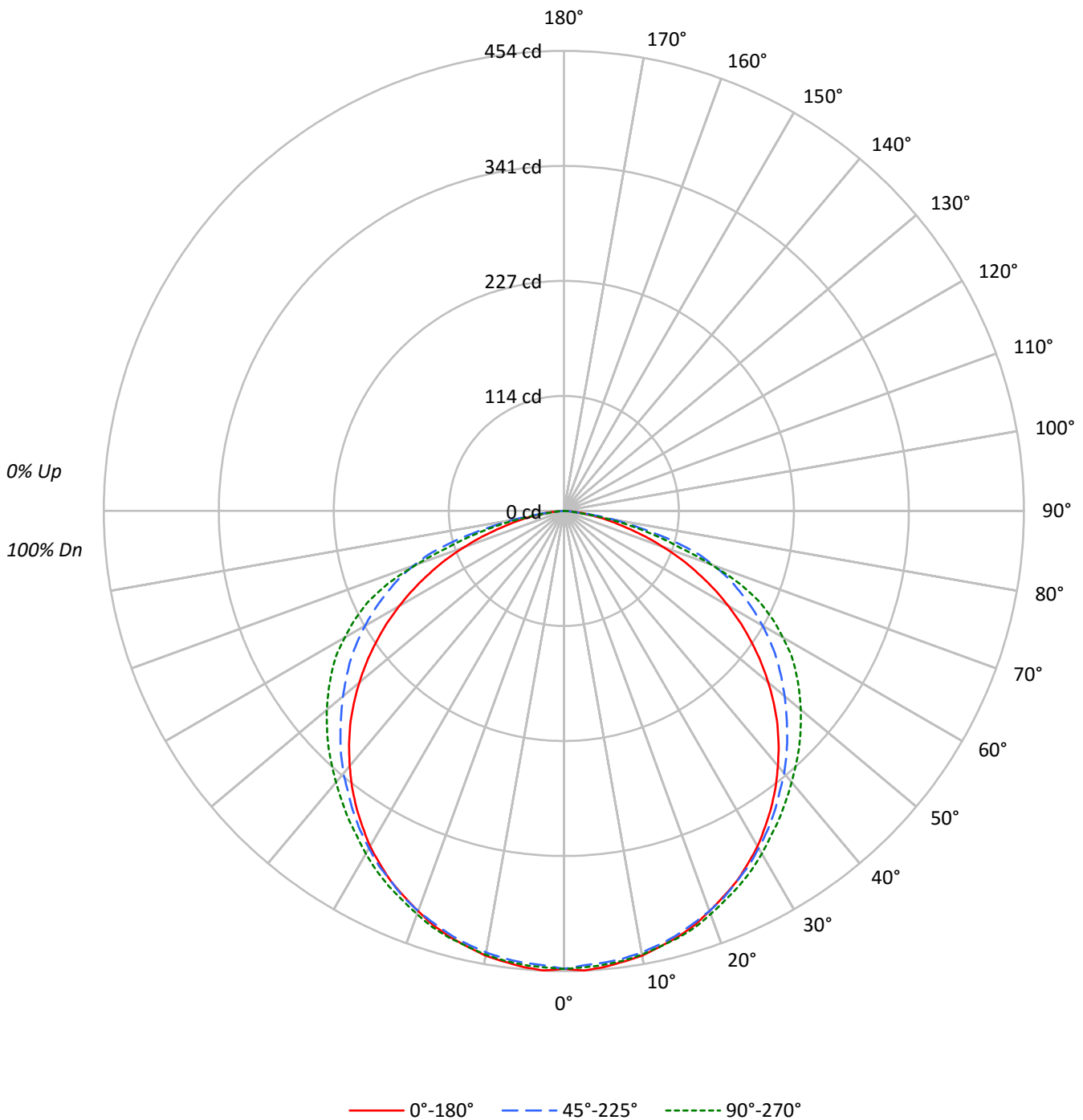
Input Watts (W): 16.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84					84			
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69					69			
3	90	79	71	64	87	77	70	63	74	68	62	71	66	61	69	64	60	58					58			
4	82	70	61	54	80	68	60	53	66	58	53	63	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42					42			
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37					37			
7	64	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32					32			
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29					29			
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26					26			
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23					23			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1216	1216	1216
5°	1220	1209	1215
10°	1217	1209	1214
15°	1212	1206	1215
20°	1203	1203	1212
25°	1198	1198	1213
30°	1188	1194	1214
35°	1173	1190	1218
40°	1154	1188	1228
45°	1134	1186	1251
50°	1102	1191	1279
55°	1062	1206	1314
60°	1009	1218	1343
65°	932	1234	1361
70°	828	1243	1218
75°	667	1117	974
80°	522	784	637
85°	358	228	164



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.8	3.2
10°-20°	122.7	9.1
20°-30°	186.8	13.8
30°-40°	227.6	16.9
40°-50°	241.4	17.9
50°-60°	227.8	16.9
60°-70°	184.0	13.6
70°-80°	99.8	7.4
80°-90°	16.1	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°	352.3	26.1
0°-40°	579.8	43.0
0°-60°	1049.1	77.8
0°-90°	1349.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1349.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	452	452	452	452	452	
5°	452	451	448	451	450	43
15°	435	434	433	436	436	123
25°	403	402	403	408	409	186
35°	357	359	362	370	371	223
45°	298	302	312	323	329	230
55°	226	236	257	274	280	202
65°	146	164	194	210	214	145
75°	64	94	107	97	94	70
85°	12	13	7	6	5	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	451.8	451.8	451.8	451.8	451.8
2.5°	453.9	451.8	448.7	451.8	450.8
5°	451.8	450.8	447.6	450.8	449.7
7.5°	448.7	448.7	445.5	447.6	447.6
10°	445.5	444.4	442.3	445.5	444.4
12.5°	440.2	439.2	438.1	441.3	440.2
15°	435.0	433.9	432.9	436.0	436.0
17.5°	428.6	427.6	426.5	430.8	430.8
20°	420.2	420.2	420.2	424.4	423.4
22.5°	411.8	411.8	412.8	417.1	416.0
25°	403.4	402.3	403.4	407.6	408.6
27.5°	392.8	393.9	394.9	399.2	400.2
30°	382.3	383.4	384.4	389.7	390.7
32.5°	369.7	371.8	373.9	380.2	380.2
35°	357.0	359.1	362.3	369.7	370.7
37.5°	343.3	345.4	349.7	358.1	360.2
40°	328.6	331.8	338.1	346.5	349.7
42.5°	313.8	318.1	325.4	334.9	339.1
45°	298.1	302.3	311.7	323.3	328.6
47.5°	281.2	286.5	298.1	312.8	317.0
50°	263.3	270.7	284.4	300.2	305.4
52.5°	245.4	253.8	270.7	287.5	292.8
55°	226.4	235.9	257.0	273.8	280.1
57.5°	207.5	218.0	242.2	260.1	266.5
60°	187.5	200.1	226.4	244.3	249.6
62.5°	167.5	182.2	210.6	228.5	232.8
65°	146.4	164.3	193.8	209.6	213.8
67.5°	126.4	147.4	176.9	188.5	188.5
70°	105.3	128.5	158.0	161.1	154.8
72.5°	84.3	110.6	136.9	125.3	120.1
75°	64.2	93.7	107.4	96.9	93.7
77.5°	48.4	75.8	75.8	69.5	67.4
80°	33.7	57.9	50.6	44.2	41.1
82.5°	22.1	32.6	26.3	21.1	17.9
85°	11.6	12.6	7.4	6.3	5.3
87.5°	4.2	2.1	1.1	2.1	1.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)