

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: P313450

Luminaire Tested: **24FCZ2-30-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: P313450
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-30-UNV-L83050-RDP-CP125-W2A-U-3000K
Description: 2'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

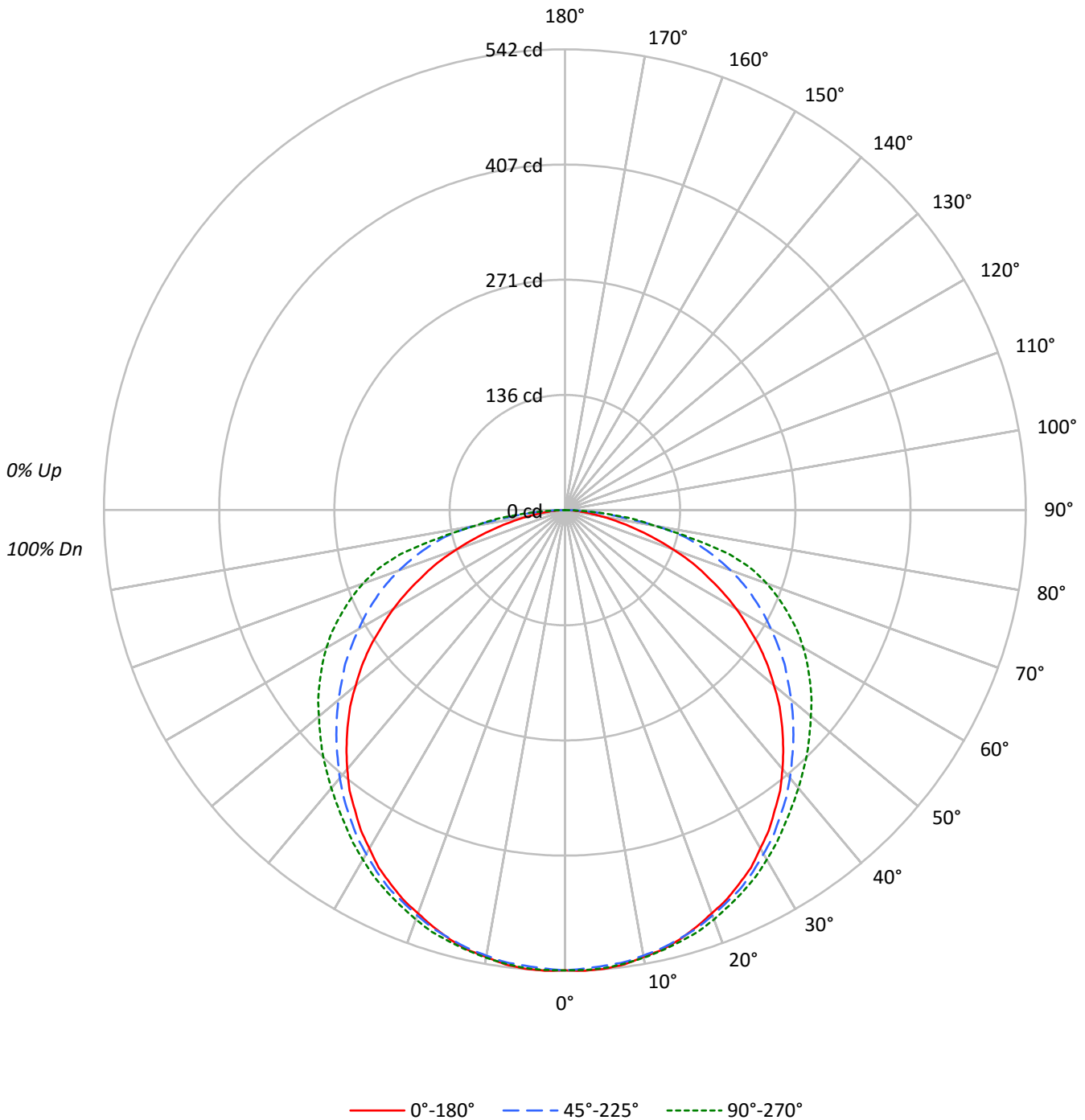
Lumens per Lamp: N/A
Luminaire Lumens: 1722.0 lumens
Efficiency: N/A
Efficacy: 73.6 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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	108	103	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	729	729	729
5°	731	727	730
10°	729	727	731
15°	728	727	732
20°	723	727	734
25°	720	728	735
30°	714	726	738
35°	707	724	741
40°	699	723	750
45°	687	723	767
50°	672	728	790
55°	655	739	825
60°	628	754	871
65°	587	780	925
70°	534	817	995
75°	453	861	1039
80°	357	867	841
85°	264	659	738



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.4	3.0
10°-20°	147.8	8.6
20°-30°	226.1	13.1
30°-40°	276.4	16.0
40°-50°	294.6	17.1
50°-60°	281.6	16.4
60°-70°	238.6	13.9
70°-80°	160.3	9.3
80°-90°	45.2	2.6
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°	425.3	24.7
0°-40°	701.7	40.7
0°-60°	1277.9	74.2
0°-90°	1722.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1722.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	542	542	542	542	542	
5°	542	541	538	541	541	51
15°	523	523	522	526	525	147
25°	485	487	490	494	495	224
35°	430	434	441	449	451	270
45°	361	367	380	396	403	279
55°	279	290	315	340	352	249
65°	184	203	245	278	290	183
75°	87	119	166	194	200	93
85°	17	35	43	46	48	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	541.5	541.5	541.5	541.5	541.5
2.5°	542.4	542.4	539.8	541.5	541.5
5°	541.5	540.7	538.1	540.7	540.7
7.5°	539.0	538.1	536.4	539.0	538.1
10°	533.8	533.8	532.1	534.7	534.7
12.5°	529.6	528.7	527.9	531.3	530.4
15°	522.7	522.7	521.9	526.1	525.3
17.5°	514.2	515.0	515.9	519.3	520.2
20°	504.8	506.5	507.4	512.5	512.5
22.5°	496.3	497.1	498.8	503.9	503.9
25°	485.1	486.9	490.3	494.5	495.4
27.5°	474.0	474.9	479.2	485.1	486.0
30°	459.5	462.1	467.2	474.0	474.9
32.5°	446.7	449.3	455.3	462.1	463.8
35°	430.5	433.9	440.7	449.3	451.0
37.5°	416.0	418.5	427.1	436.5	439.0
40°	398.0	403.2	411.7	422.8	427.1
42.5°	380.1	385.2	395.5	410.0	415.1
45°	361.3	367.3	380.1	396.3	403.2
47.5°	342.5	349.3	363.9	382.7	390.3
50°	321.2	329.7	347.6	369.0	377.5
52.5°	300.7	310.9	330.5	354.5	365.6
55°	279.3	289.6	315.2	339.9	351.9
57.5°	255.4	269.1	297.2	325.4	338.2
60°	233.2	246.0	280.2	310.9	323.7
62.5°	209.3	226.3	263.1	295.5	308.3
65°	184.5	203.3	245.1	277.6	290.4
67.5°	162.3	182.8	227.2	259.7	272.5
70°	135.8	161.4	207.6	240.0	252.8
72.5°	111.0	139.2	187.1	218.7	230.6
75°	87.1	118.7	165.7	193.9	199.9
77.5°	64.9	98.2	143.5	155.5	151.2
80°	46.1	78.6	111.9	105.9	108.5
82.5°	29.9	59.8	69.2	78.6	81.1
85°	17.1	35.0	42.7	46.1	47.8
87.5°	7.7	12.8	17.1	17.1	16.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)