

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: P313426

Luminaire Tested: **24FCZ2-30HE-UNV-L83050-RDP-CP125-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: P313426
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: 24FCZ2-30HE-UNV-L83050-RDP-CP125-W2A-U-3500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET
Light Source: (336) 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: 1844.0 lumens
Efficiency: N/A
Efficacy: 87.4 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

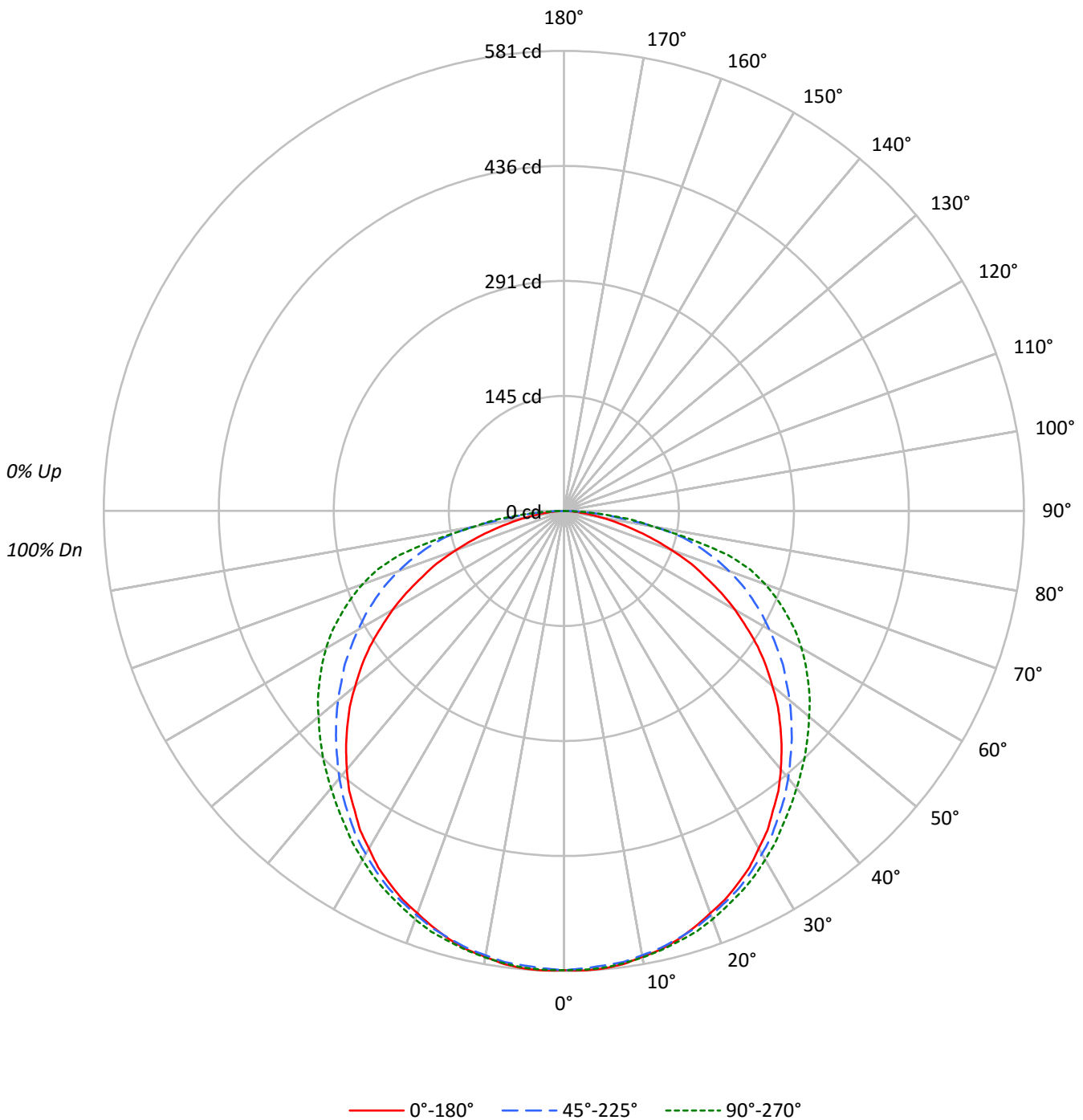
Input Watts (W): 21.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	780	780	780
5°	783	778	782
10°	781	778	782
15°	780	778	784
20°	774	778	786
25°	771	779	788
30°	765	777	790
35°	757	775	793
40°	749	774	803
45°	736	774	821
50°	720	779	846
55°	702	792	884
60°	672	807	933
65°	629	836	990
70°	572	875	1065
75°	485	922	1112
80°	383	928	900
85°	283	706	790



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.0	3.0
10°-20°	158.3	8.6
20°-30°	242.1	13.1
30°-40°	296.0	16.0
40°-50°	315.4	17.1
50°-60°	301.6	16.4
60°-70°	255.5	13.9
70°-80°	171.7	9.3
80°-90°	48.4	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°	455.4	24.7
0°-40°	751.4	40.7
0°-60°	1368.4	74.2
0°-90°	1844.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1844.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	580	580	580	580	580	
5°	580	579	576	579	579	55
15°	560	560	559	563	562	158
25°	520	521	525	530	530	239
35°	461	465	472	481	483	289
45°	387	393	407	424	432	298
55°	299	310	338	364	377	266
65°	198	218	262	297	311	196
75°	93	127	177	208	214	100
85°	18	38	46	49	51	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	579.9	579.9	579.9	579.9	579.9
2.5°	580.8	580.8	578.1	579.9	579.9
5°	579.9	579.0	576.2	579.0	579.0
7.5°	577.1	576.2	574.4	577.1	576.2
10°	571.7	571.7	569.8	572.6	572.6
12.5°	567.1	566.2	565.3	568.9	568.0
15°	559.8	559.8	558.8	563.4	562.5
17.5°	550.6	551.5	552.4	556.1	557.0
20°	540.6	542.4	543.3	548.8	548.8
22.5°	531.4	532.3	534.2	539.6	539.6
25°	519.5	521.3	525.0	529.6	530.5
27.5°	507.6	508.5	513.1	519.5	520.4
30°	492.1	494.8	500.3	507.6	508.5
32.5°	478.4	481.1	487.5	494.8	496.7
35°	461.0	464.6	472.0	481.1	482.9
37.5°	445.4	448.2	457.3	467.4	470.1
40°	426.2	431.7	440.9	452.7	457.3
42.5°	407.0	412.5	423.5	439.0	444.5
45°	386.9	393.3	407.0	424.4	431.7
47.5°	366.8	374.1	389.6	409.8	418.0
50°	343.9	353.1	372.3	395.1	404.3
52.5°	322.0	332.9	354.0	379.6	391.5
55°	299.1	310.1	337.5	364.0	376.8
57.5°	273.5	288.1	318.3	348.5	362.2
60°	249.7	263.4	300.0	332.9	346.7
62.5°	224.1	242.4	281.7	316.5	330.2
65°	197.6	217.7	262.5	297.3	311.0
67.5°	173.8	195.7	243.3	278.1	291.8
70°	145.4	172.9	222.3	257.0	270.7
72.5°	118.9	149.1	200.3	234.1	247.0
75°	93.3	127.1	177.4	207.6	214.0
77.5°	69.5	105.2	153.7	166.5	161.9
80°	49.4	84.1	119.8	113.4	116.2
82.5°	32.0	64.0	74.1	84.1	86.9
85°	18.3	37.5	45.7	49.4	51.2
87.5°	8.2	13.7	18.3	18.3	17.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)