

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: P312202

Luminaire Tested: **14FCZ2-29-UNV-L83050-CP125-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: P312202
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-49)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-29-UNV-L83050-CP125-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB 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: 2874.0 lumens
Efficiency: N/A
Efficacy: 118.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

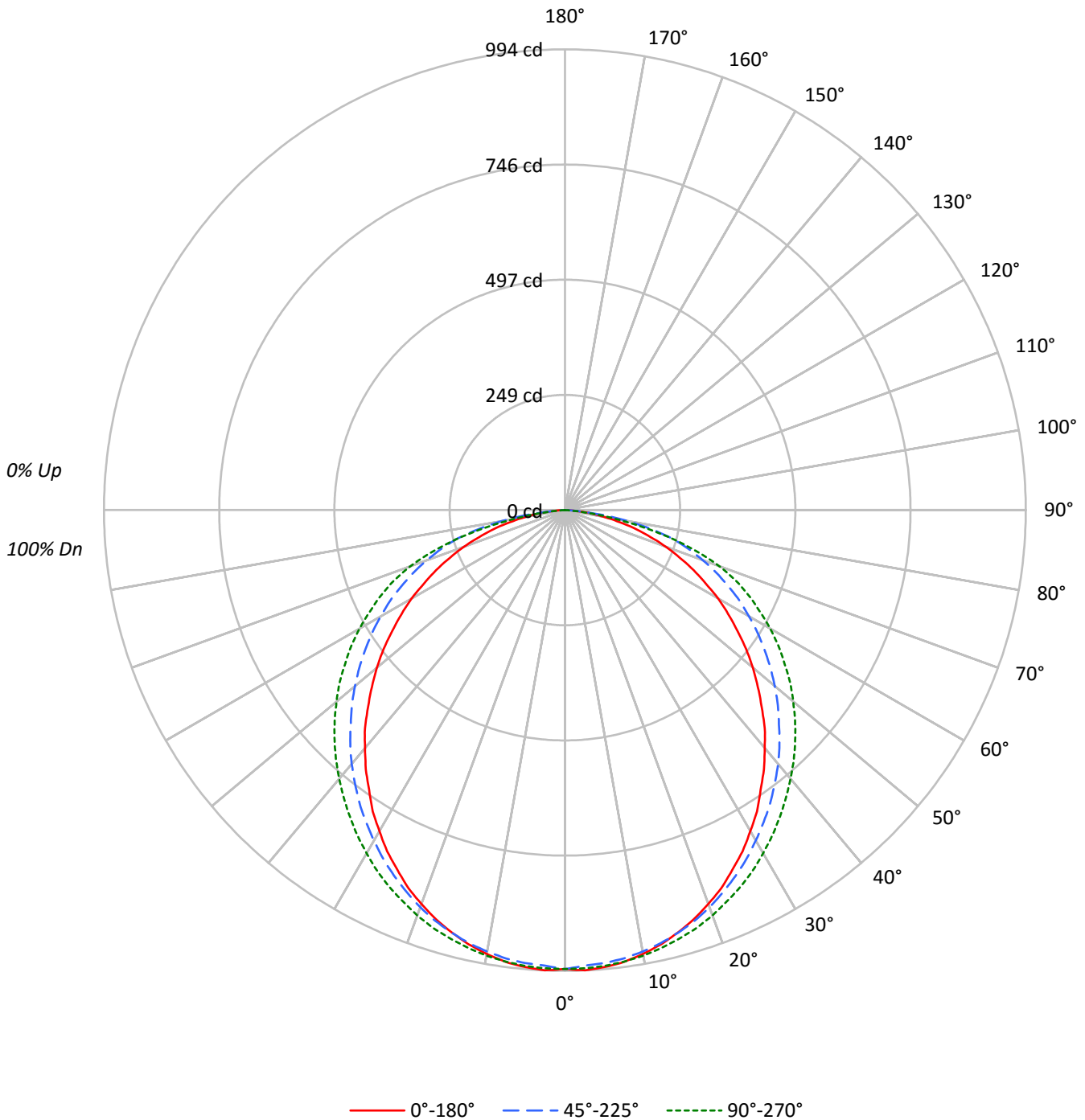
Input Watts (W): 24.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	79	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	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2664	2664	2664
5°	2673	2650	2666
10°	2657	2642	2667
15°	2628	2630	2666
20°	2589	2611	2665
25°	2540	2586	2662
30°	2485	2559	2656
35°	2419	2537	2655
40°	2355	2512	2659
45°	2283	2485	2673
50°	2216	2474	2691
55°	2132	2465	2715
60°	2055	2469	2752
65°	1950	2477	2795
70°	1830	2496	2793
75°	1659	2518	2525
80°	1361	2174	1798
85°	1010	1028	417



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.7	3.3
10°-20°	267.6	9.3
20°-30°	403.2	14.0
30°-40°	483.8	16.8
40°-50°	504.3	17.5
50°-60°	466.8	16.2
60°-70°	377.2	13.1
70°-80°	230.0	8.0
80°-90°	47.5	1.7
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°	764.5	26.6
0°-40°	1248.3	43.4
0°-60°	2219.4	77.2
0°-90°	2874.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2874.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	990	990	990	990	990	
5°	990	987	981	988	987	94
15°	943	944	944	957	957	266
25°	856	861	871	893	896	394
35°	736	748	772	800	808	461
45°	600	618	653	690	702	464
55°	454	478	526	566	579	407
65°	306	336	389	428	439	303
75°	160	195	242	246	243	168
85°	33	49	33	19	14	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	990.1	990.1	990.1	990.1	990.1
2.5°	993.9	990.7	983.7	990.7	989.5
5°	989.5	986.9	981.1	988.2	986.9
7.5°	983.1	980.5	975.4	983.7	982.4
10°	972.2	970.9	967.0	976.6	976.0
12.5°	959.3	958.7	956.8	967.7	967.0
15°	943.3	944.0	944.0	956.8	956.8
17.5°	925.4	926.7	929.2	943.3	945.2
20°	904.2	906.8	911.9	927.9	930.5
22.5°	882.4	884.4	892.1	911.3	913.8
25°	855.5	860.7	870.9	892.7	896.5
27.5°	829.9	834.4	848.5	870.9	877.3
30°	799.8	806.8	823.5	847.8	854.9
32.5°	770.9	778.6	797.8	826.0	832.5
35°	736.3	747.9	772.2	800.4	808.1
37.5°	704.9	715.8	743.4	774.1	783.1
40°	670.3	683.8	715.2	747.9	756.8
42.5°	638.3	651.1	685.1	718.4	730.6
45°	599.8	617.8	653.0	689.5	702.4
47.5°	564.6	582.5	622.9	662.0	673.5
50°	529.3	548.6	590.9	631.2	642.8
52.5°	492.8	513.3	558.8	599.2	612.6
55°	454.4	478.1	525.5	566.5	578.7
57.5°	417.8	442.2	492.8	534.5	546.6
60°	381.9	406.9	458.8	498.6	511.4
62.5°	342.2	371.7	425.5	464.6	474.2
65°	306.3	336.4	389.0	428.1	439.0
67.5°	268.5	301.2	353.7	389.6	399.9
70°	232.6	266.6	317.2	350.5	355.0
72.5°	194.2	228.8	280.0	301.2	301.2
75°	159.6	194.8	242.2	246.1	242.9
77.5°	121.8	160.9	191.6	183.9	176.2
80°	87.8	126.2	140.3	126.2	116.0
82.5°	59.0	91.6	84.6	67.3	59.6
85°	32.7	48.7	33.3	18.6	13.5
87.5°	12.2	10.9	3.2	3.2	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)