

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: P312210

Luminaire Tested: **14FCZ2-29-UNV-L83050-CP250-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: P312210
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-CP250-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.250" 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: 2457.0 lumens
Efficiency: N/A
Efficacy: 103.2 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

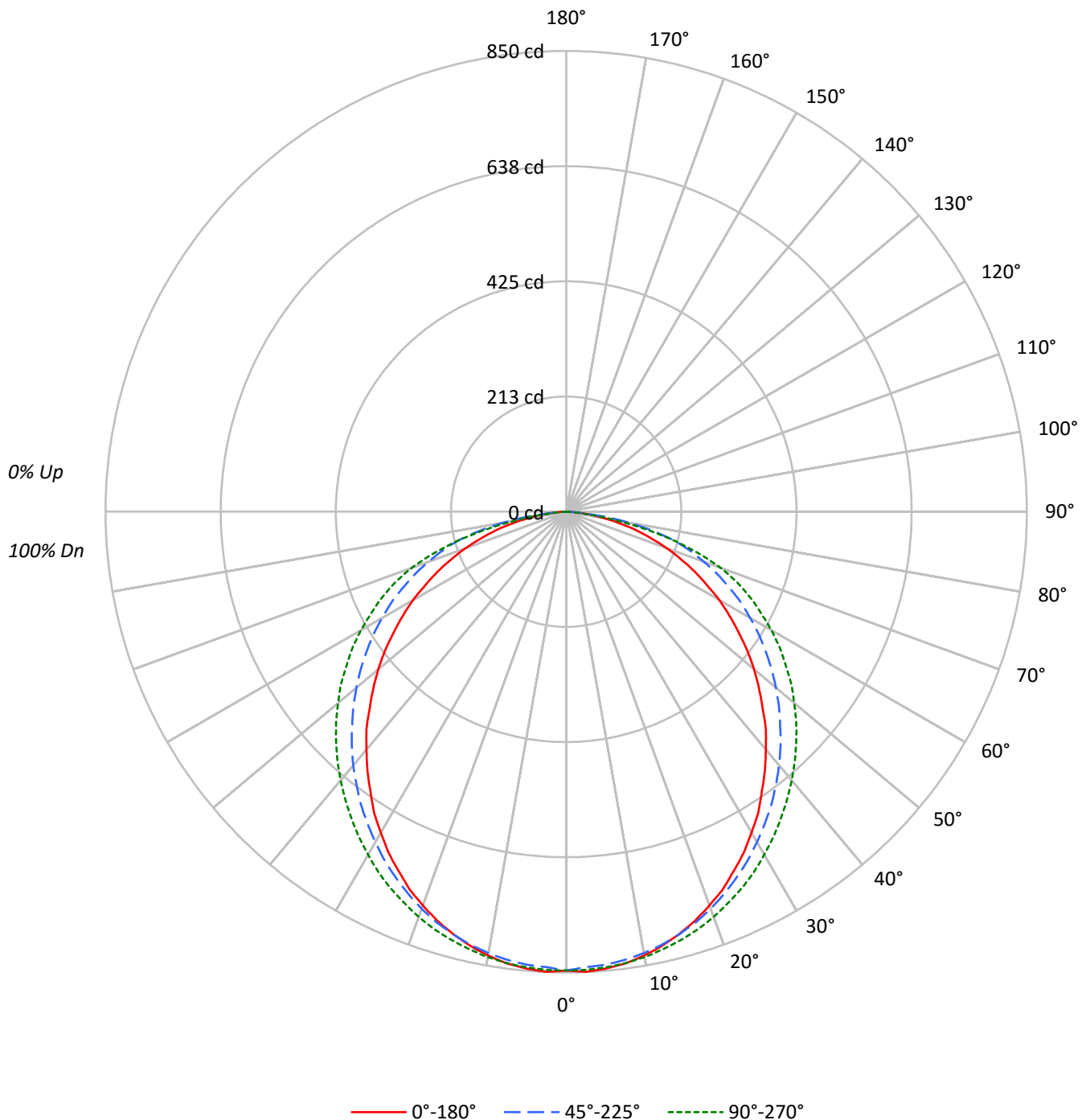
Input Watts (W): 23.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	109	104	99	95	106	101	97	94	97	94	91		93	90	88		83
2	98	90	83	77	96	88	82	76	84	79	74		81	77	73		69
3	89	79	70	64	87	77	69	63	74	67	62		71	66	61		58
4	82	70	61	54	79	68	60	53	66	58	53		63	57	52		49
5	75	62	53	46	73	61	52	46	59	51	45		57	50	45		42
6	69	56	47	40	67	55	46	40	53	45	40		51	44	39		37
7	64	51	42	35	63	50	41	35	48	41	35		47	40	35		32
8	60	46	37	32	58	45	37	31	44	37	31		43	36	31		29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		26
10	52	39	31	26	51	39	31	26	37	30	26		37	30	25		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2278	2278	2278
5°	2285	2266	2279
10°	2271	2259	2280
15°	2247	2248	2279
20°	2214	2233	2278
25°	2172	2211	2276
30°	2124	2188	2271
35°	2068	2169	2270
40°	2013	2148	2273
45°	1952	2125	2285
50°	1894	2115	2300
55°	1822	2107	2321
60°	1757	2111	2353
65°	1668	2118	2390
70°	1565	2134	2388
75°	1418	2153	2158
80°	1164	1860	1537
85°	861	880	355



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.1	3.3
10°-20°	228.8	9.3
20°-30°	344.7	14.0
30°-40°	413.6	16.8
40°-50°	431.1	17.5
50°-60°	399.1	16.2
60°-70°	322.5	13.1
70°-80°	196.6	8.0
80°-90°	40.6	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°	653.6	26.6
0°-40°	1067.2	43.4
0°-60°	1897.3	77.2
0°-90°	2457.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2457.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	846	846	846	846	846	
5°	846	844	839	845	844	80
15°	806	807	807	818	818	227
25°	731	736	744	763	766	337
35°	630	639	660	684	691	394
45°	513	528	558	590	600	396
55°	388	409	449	484	495	348
65°	262	288	333	366	375	259
75°	136	166	207	210	208	143
85°	28	42	28	16	12	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	846.4	846.4	846.4	846.4	846.4
2.5°	849.7	847.0	841.0	847.0	845.9
5°	845.9	843.7	838.8	844.8	843.7
7.5°	840.4	838.2	833.8	841.0	839.9
10°	831.1	830.0	826.7	834.9	834.4
12.5°	820.1	819.6	818.0	827.3	826.7
15°	806.5	807.0	807.0	818.0	818.0
17.5°	791.1	792.2	794.4	806.5	808.1
20°	773.0	775.2	779.6	793.3	795.5
22.5°	754.4	756.0	762.6	779.1	781.2
25°	731.4	735.8	744.5	763.2	766.5
27.5°	709.5	713.3	725.4	744.5	750.0
30°	683.7	689.8	704.0	724.8	730.8
32.5°	659.1	665.7	682.1	706.2	711.7
35°	629.5	639.4	660.2	684.3	690.9
37.5°	602.6	612.0	635.5	661.8	669.5
40°	573.1	584.6	611.4	639.4	647.0
42.5°	545.7	556.6	585.7	614.2	624.6
45°	512.8	528.1	558.3	589.5	600.5
47.5°	482.7	498.0	532.5	565.9	575.8
50°	452.5	469.0	505.1	539.6	549.5
52.5°	421.3	438.8	477.7	512.2	523.8
55°	388.4	408.7	449.2	484.3	494.7
57.5°	357.2	378.0	421.3	456.9	467.3
60°	326.5	347.9	392.3	426.2	437.2
62.5°	292.6	317.8	363.8	397.2	405.4
65°	261.9	287.6	332.6	366.0	375.3
67.5°	229.6	257.5	302.4	333.1	341.9
70°	198.9	227.9	271.2	299.7	303.5
72.5°	166.0	195.6	239.4	257.5	257.5
75°	136.4	166.5	207.1	210.4	207.6
77.5°	104.1	137.5	163.8	157.2	150.7
80°	75.1	107.9	120.0	107.9	99.2
82.5°	50.4	78.3	72.3	57.5	51.0
85°	27.9	41.6	28.5	15.9	11.5
87.5°	10.4	9.3	2.7	2.7	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)