

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: P312350

Luminaire Tested: **14FCZ2-29-UNV-L83050-S-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: P312350
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)
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-S-CP125-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS, 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: 2614.0 lumens
Efficiency: N/A
Efficacy: 109.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

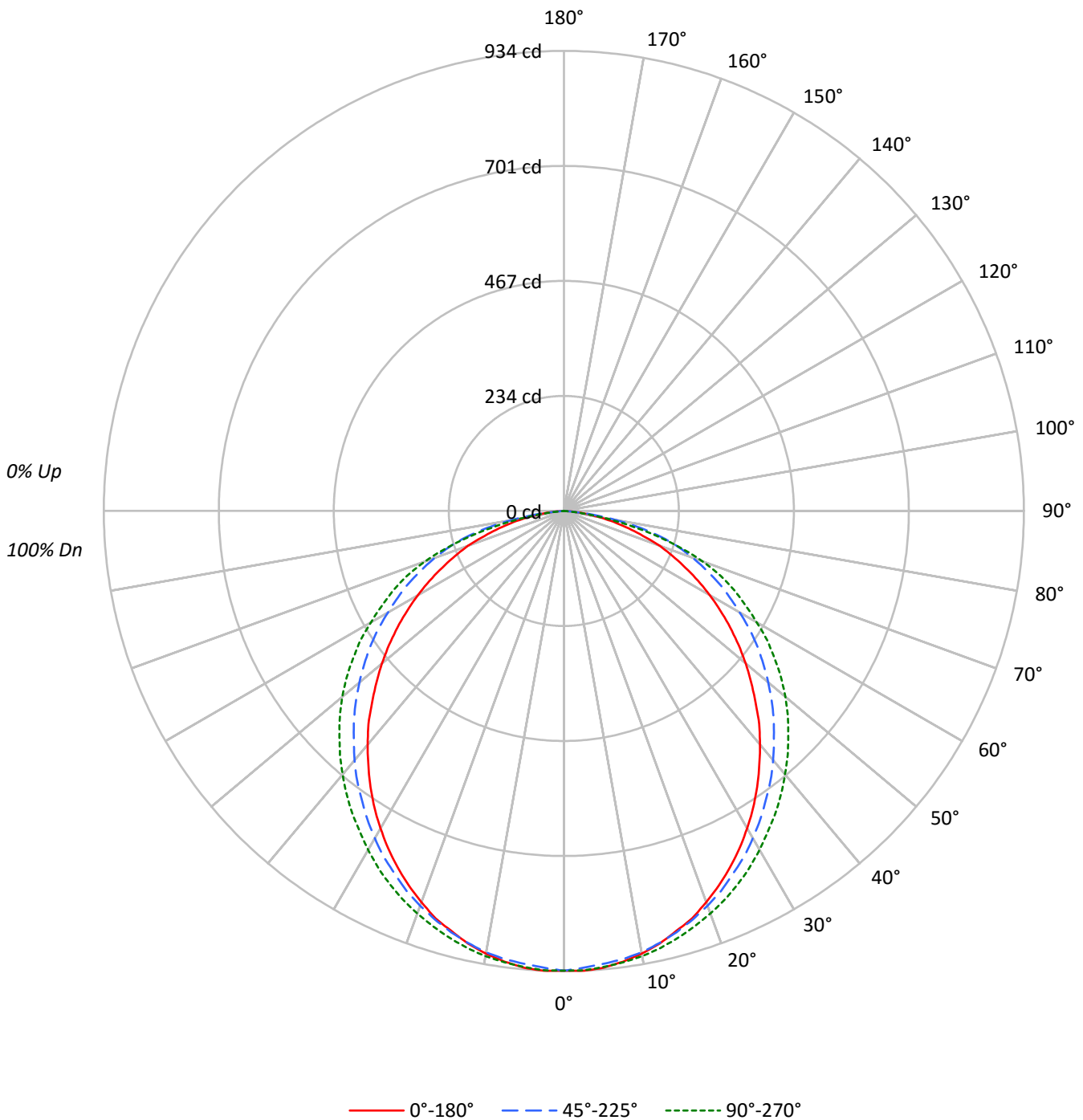
Input Watts (W): 23.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2511	2511	2511
5°	2514	2493	2510
10°	2493	2486	2507
15°	2459	2466	2499
20°	2420	2442	2490
25°	2371	2413	2482
30°	2312	2384	2469
35°	2248	2350	2461
40°	2176	2322	2454
45°	2096	2294	2451
50°	2018	2268	2458
55°	1933	2250	2450
60°	1842	2218	2434
65°	1733	2211	2434
70°	1632	2193	2366
75°	1415	2143	2021
80°	1145	1728	1345
85°	760	599	401



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.1	3.4
10°-20°	250.7	9.6
20°-30°	376.1	14.4
30°-40°	448.7	17.2
40°-50°	463.9	17.7
50°-60°	423.5	16.2
60°-70°	333.3	12.7
70°-80°	194.0	7.4
80°-90°	35.8	1.4
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°	715.0	27.4
0°-40°	1163.7	44.5
0°-60°	2051.0	78.5
0°-90°	2614.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2614.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	933	933	933	933	933	
5°	931	928	923	931	929	88
15°	883	884	885	897	897	249
25°	798	802	813	832	836	368
35°	684	693	715	743	749	428
45°	551	569	603	636	644	425
55°	412	434	480	514	522	369
65°	272	301	347	375	382	270
75°	136	168	206	202	194	145
85°	25	35	19	16	13	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	933.2	933.2	933.2	933.2	933.2
2.5°	934.5	931.9	928.0	934.5	933.2
5°	930.6	928.0	922.8	930.6	929.3
7.5°	922.8	920.2	917.6	925.4	924.1
10°	912.4	911.1	909.8	918.9	917.6
12.5°	899.5	899.5	898.2	908.5	908.5
15°	882.6	883.9	885.2	896.9	896.9
17.5°	867.1	865.8	869.6	882.6	883.9
20°	845.0	847.6	852.8	868.4	869.6
22.5°	823.0	825.6	834.7	850.2	854.1
25°	798.4	802.3	812.6	832.1	836.0
27.5°	772.4	777.6	791.9	812.6	816.5
30°	743.9	751.7	767.3	790.6	794.5
32.5°	715.4	723.2	742.6	766.0	771.1
35°	684.3	693.4	715.4	742.6	749.1
37.5°	651.9	663.6	689.5	716.7	724.5
40°	619.5	632.5	661.0	689.5	698.6
42.5°	587.1	600.1	631.2	663.6	672.6
45°	550.8	569.0	602.7	636.4	644.1
47.5°	515.8	535.3	572.9	606.6	616.9
50°	482.1	501.6	541.7	576.7	587.1
52.5°	447.1	467.9	510.6	546.9	556.0
55°	412.1	434.2	479.5	514.5	522.3
57.5°	377.1	400.5	447.1	480.8	489.9
60°	342.2	366.8	412.1	445.8	452.3
62.5°	307.2	333.1	379.7	409.6	416.0
65°	272.2	300.7	347.3	374.6	382.3
67.5°	238.5	267.0	312.3	338.3	344.7
70°	207.4	233.3	278.7	298.1	300.7
72.5°	168.5	200.9	245.0	255.3	248.8
75°	136.1	168.5	206.1	202.2	194.4
77.5°	103.7	136.1	160.7	147.7	137.4
80°	73.9	106.3	111.5	92.0	86.8
82.5°	48.0	73.9	62.2	48.0	38.9
85°	24.6	35.0	19.4	15.6	13.0
87.5°	7.8	5.2	2.6	2.6	1.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)