

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: P312345

Luminaire Tested: **14FCZ2-29-UNV-L83050-S-CA125-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: P312345
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-CA125-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.125" ACRYLIC 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: 2666.0 lumens
Efficiency: N/A
Efficacy: 112.0 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

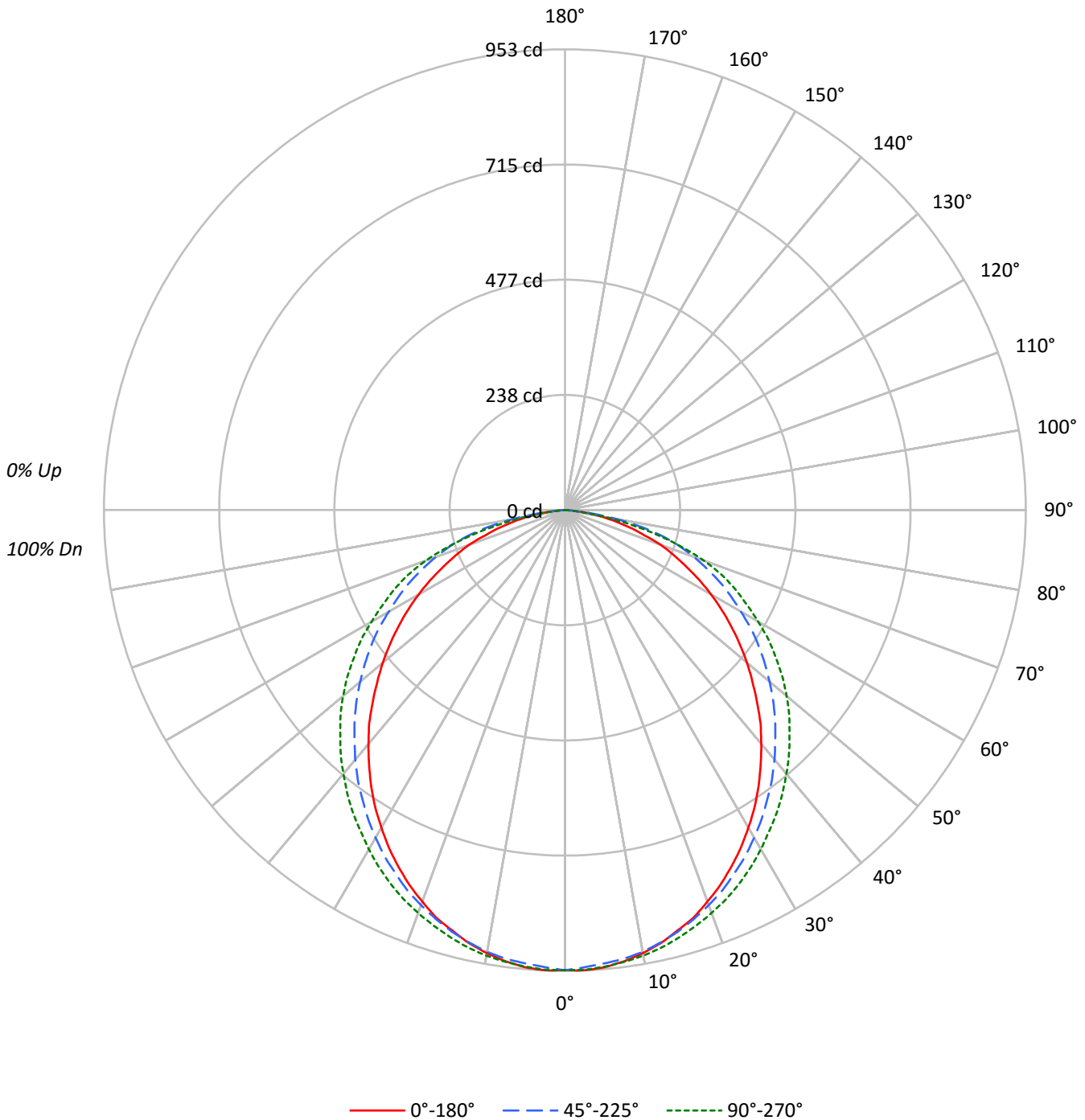
Input Watts (W): 23.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2561	2561	2561
5°	2564	2542	2560
10°	2543	2535	2557
15°	2508	2515	2548
20°	2468	2491	2540
25°	2417	2461	2532
30°	2357	2431	2518
35°	2293	2397	2510
40°	2219	2368	2503
45°	2138	2339	2500
50°	2058	2313	2507
55°	1972	2295	2499
60°	1878	2262	2483
65°	1768	2256	2483
70°	1664	2236	2413
75°	1443	2185	2062
80°	1167	1762	1373
85°	775	611	408



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.9	3.4
10°-20°	255.7	9.6
20°-30°	383.6	14.4
30°-40°	457.6	17.2
40°-50°	473.1	17.7
50°-60°	431.9	16.2
60°-70°	339.9	12.7
70°-80°	197.9	7.4
80°-90°	36.4	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°	729.2	27.4
0°-40°	1186.8	44.5
0°-60°	2091.8	78.5
0°-90°	2666.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2666.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	952	952	952	952	952	
5°	949	946	941	949	948	90
15°	900	902	903	915	915	254
25°	814	818	829	849	853	375
35°	698	707	730	757	764	436
45°	562	580	615	649	657	434
55°	420	443	489	525	533	376
65°	278	307	354	382	390	276
75°	139	172	210	206	198	148
85°	25	36	20	16	13	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	951.7	951.7	951.7	951.7	951.7
2.5°	953.0	950.4	946.4	953.0	951.7
5°	949.1	946.4	941.1	949.1	947.8
7.5°	941.1	938.5	935.9	943.8	942.5
10°	930.6	929.2	927.9	937.2	935.9
12.5°	917.4	917.4	916.0	926.6	926.6
15°	900.2	901.5	902.8	914.7	914.7
17.5°	884.3	883.0	886.9	900.2	901.5
20°	861.8	864.5	869.8	885.6	886.9
22.5°	839.4	842.0	851.3	867.1	871.1
25°	814.2	818.2	828.8	848.6	852.6
27.5°	787.8	793.1	807.6	828.8	832.8
30°	758.7	766.7	782.5	806.3	810.3
32.5°	729.7	737.6	757.4	781.2	786.5
35°	697.9	707.2	729.7	757.4	764.0
37.5°	664.9	676.8	703.2	731.0	738.9
40°	631.8	645.1	674.1	703.2	712.5
42.5°	598.8	612.0	643.7	676.8	686.0
45°	561.8	580.3	614.7	649.0	656.9
47.5°	526.1	545.9	584.2	618.6	629.2
50°	491.7	511.5	552.5	588.2	598.8
52.5°	456.0	477.2	520.8	557.8	567.1
55°	420.3	442.8	489.1	524.8	532.7
57.5°	384.7	408.4	456.0	490.4	499.7
60°	349.0	374.1	420.3	454.7	461.3
62.5°	313.3	339.7	387.3	417.7	424.3
65°	277.6	306.7	354.3	382.0	389.9
67.5°	243.2	272.3	318.6	345.0	351.6
70°	211.5	237.9	284.2	304.0	306.7
72.5°	171.8	204.9	249.8	260.4	253.8
75°	138.8	171.8	210.2	206.2	198.3
77.5°	105.7	138.8	163.9	150.7	140.1
80°	75.3	108.4	113.7	93.8	88.6
82.5°	48.9	75.3	63.4	48.9	39.7
85°	25.1	35.7	19.8	15.9	13.2
87.5°	7.9	5.3	2.6	2.6	1.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)