

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: P312193

Luminaire Tested: **14FCZ2-29-UNV-L83050-CA08-W2A-U-4500K**

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: P312193
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-CA08-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 4500K 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: 2970.0 lumens
Efficiency: N/A
Efficacy: 118.8 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

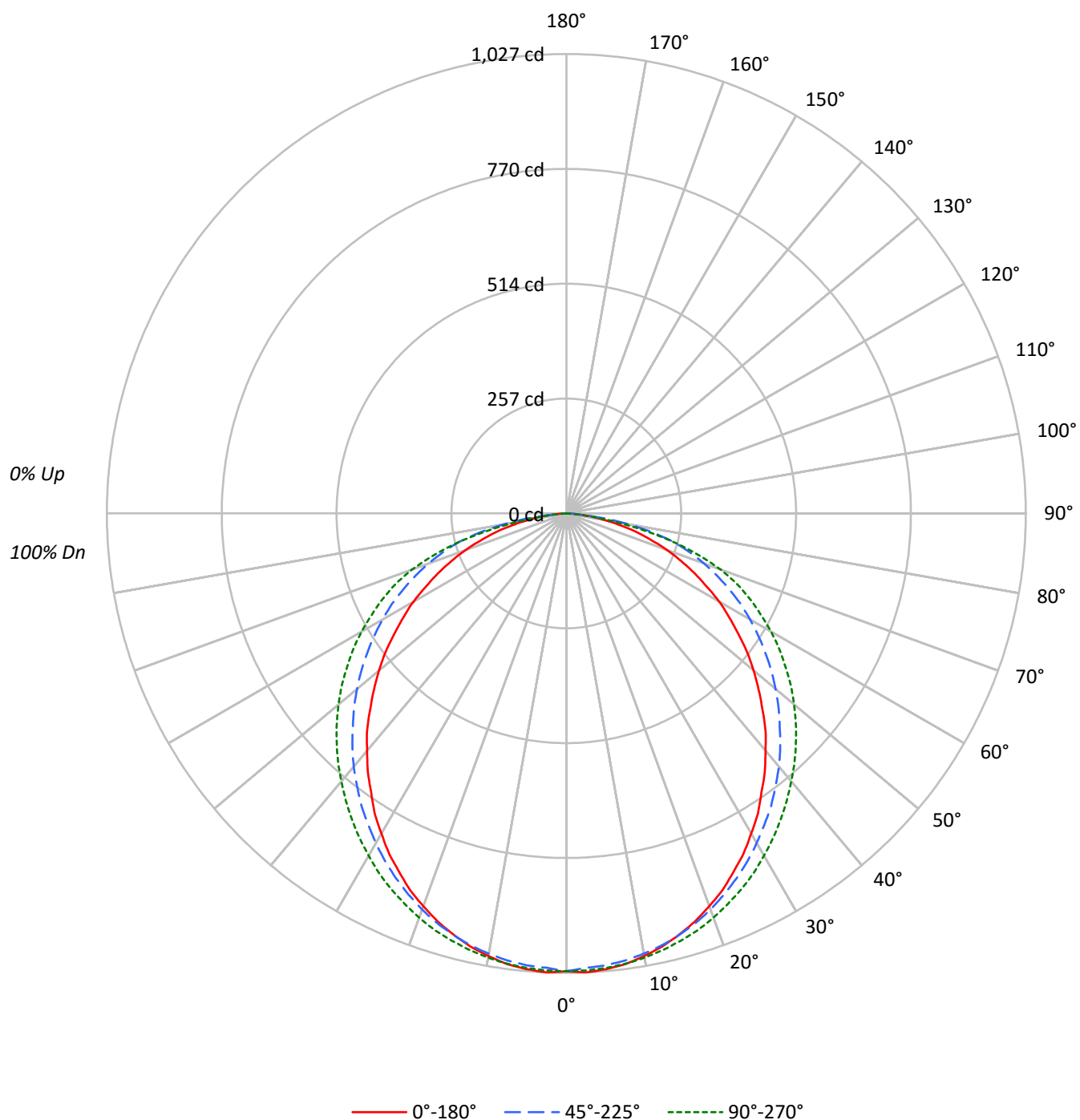
Input Watts (W): 25
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2753	2753	2753
5°	2762	2739	2755
10°	2745	2731	2756
15°	2716	2718	2754
20°	2676	2699	2754
25°	2625	2672	2751
30°	2568	2644	2745
35°	2500	2621	2743
40°	2433	2596	2747
45°	2359	2568	2762
50°	2290	2556	2781
55°	2203	2548	2806
60°	2124	2552	2844
65°	2016	2560	2888
70°	1891	2579	2887
75°	1714	2602	2610
80°	1406	2247	1858
85°	1044	1062	429



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.8	3.3
10°-20°	276.6	9.3
20°-30°	416.6	14.0
30°-40°	500.0	16.8
40°-50°	521.1	17.5
50°-60°	482.4	16.2
60°-70°	389.8	13.1
70°-80°	237.7	8.0
80°-90°	49.1	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°	790.0	26.6
0°-40°	1290.0	43.4
0°-60°	2293.5	77.2
0°-90°	2970.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2970.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1023	1023	1023	1023	1023	
5°	1022	1020	1014	1021	1020	97
15°	975	976	976	989	989	275
25°	884	889	900	922	926	407
35°	761	773	798	827	835	477
45°	620	638	675	713	726	479
55°	470	494	543	585	598	421
65°	317	348	402	442	454	313
75°	165	201	250	254	251	173
85°	34	50	34	19	14	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1023.2	1023.2	1023.2	1023.2	1023.2
2.5°	1027.1	1023.8	1016.6	1023.8	1022.5
5°	1022.5	1019.9	1013.9	1021.2	1019.9
7.5°	1015.9	1013.2	1007.9	1016.6	1015.2
10°	1004.6	1003.3	999.3	1009.3	1008.6
12.5°	991.4	990.7	988.7	1000.0	999.3
15°	974.8	975.5	975.5	988.7	988.7
17.5°	956.3	957.6	960.3	974.8	976.8
20°	934.4	937.1	942.4	958.9	961.6
22.5°	911.9	913.9	921.9	941.7	944.4
25°	884.1	889.4	900.0	922.5	926.5
27.5°	857.6	862.2	876.8	900.0	906.6
30°	826.5	833.8	851.0	876.2	883.4
32.5°	796.7	804.6	824.5	853.6	860.3
35°	760.9	772.8	798.0	827.1	835.1
37.5°	728.5	739.7	768.2	800.0	809.3
40°	692.7	706.6	739.1	772.8	782.1
42.5°	659.6	672.8	707.9	742.4	755.0
45°	619.9	638.4	674.8	712.6	725.8
47.5°	583.4	602.0	643.7	684.1	696.0
50°	547.0	566.9	610.6	652.3	664.2
52.5°	509.3	530.5	577.5	619.2	633.1
55°	469.5	494.0	543.0	585.4	598.0
57.5°	431.8	457.0	509.3	552.3	564.9
60°	394.7	420.5	474.2	515.2	528.5
62.5°	353.6	384.1	439.7	480.1	490.1
65°	316.6	347.7	402.0	442.4	453.6
67.5°	277.5	311.3	365.6	402.6	413.2
70°	240.4	275.5	327.8	362.3	366.9
72.5°	200.7	236.4	289.4	311.3	311.3
75°	164.9	201.3	250.3	254.3	251.0
77.5°	125.8	166.2	198.0	190.1	182.1
80°	90.7	130.5	145.0	130.5	119.9
82.5°	60.9	94.7	87.4	69.5	61.6
85°	33.8	50.3	34.4	19.2	13.9
87.5°	12.6	11.3	3.3	3.3	3.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)