

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: P312133

Luminaire Tested: **14FCZ2-44-UNV-L83050-RDP-CP187-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: P312133
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-43)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-44-UNV-L83050-RDP-CP187-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.187" POLYCARB 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: 2645.0 lumens
Efficiency: N/A
Efficacy: 65.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

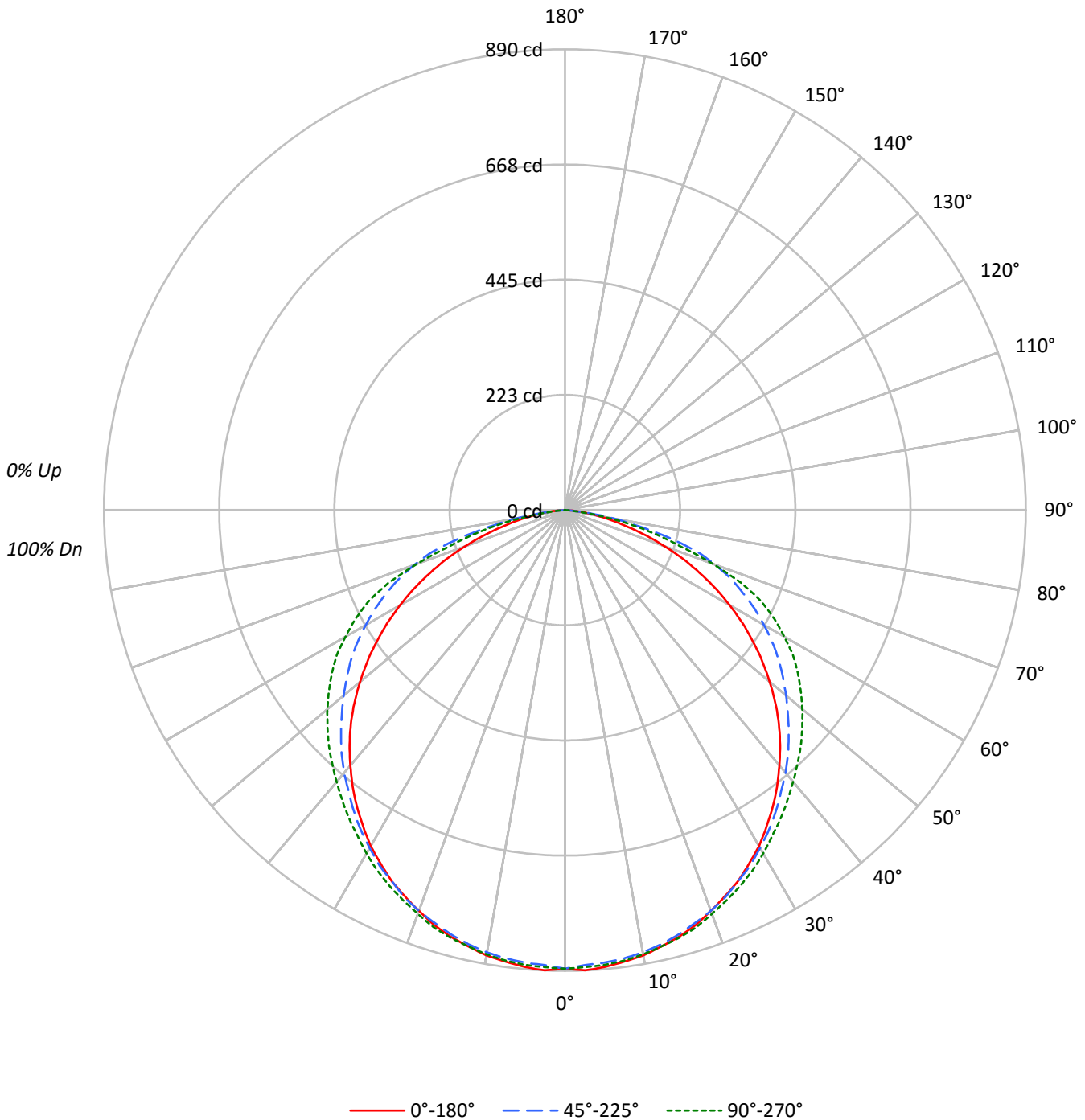
Input Watts (W): 40.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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	93	91	88	90	88	86	84
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	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	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2384	2384	2384
5°	2393	2371	2382
10°	2387	2370	2381
15°	2376	2364	2382
20°	2359	2359	2377
25°	2348	2348	2379
30°	2329	2342	2380
35°	2300	2334	2388
40°	2263	2329	2408
45°	2224	2326	2452
50°	2161	2334	2507
55°	2083	2364	2577
60°	1978	2390	2634
65°	1827	2420	2669
70°	1625	2437	2389
75°	1310	2190	1911
80°	1024	1536	1247
85°	701	448	318



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.8	3.2
10°-20°	240.6	9.1
20°-30°	366.3	13.8
30°-40°	446.2	16.9
40°-50°	473.4	17.9
50°-60°	446.7	16.9
60°-70°	360.7	13.6
70°-80°	195.7	7.4
80°-90°	31.7	1.2
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°	690.7	26.1
0°-40°	1136.9	43.0
0°-60°	2057.0	77.8
0°-90°	2645.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2645.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	886	886	886	886	886	
5°	886	884	878	884	882	84
15°	853	851	849	855	855	241
25°	791	789	791	799	801	364
35°	700	704	710	725	727	438
45°	584	593	611	634	644	450
55°	444	463	504	537	549	397
65°	287	322	380	411	419	284
75°	126	184	211	190	184	138
85°	23	25	14	12	10	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	885.9	885.9	885.9	885.9	885.9
2.5°	890.0	885.9	879.7	885.9	883.8
5°	885.9	883.8	877.6	883.8	881.7
7.5°	879.7	879.7	873.5	877.6	877.6
10°	873.5	871.4	867.3	873.5	871.4
12.5°	863.2	861.1	859.0	865.2	863.2
15°	852.8	850.8	848.7	854.9	854.9
17.5°	840.4	838.4	836.3	844.6	844.6
20°	823.9	823.9	823.9	832.2	830.1
22.5°	807.4	807.4	809.5	817.7	815.7
25°	790.9	788.8	790.9	799.1	801.2
27.5°	770.2	772.3	774.4	782.6	784.7
30°	749.6	751.7	753.7	764.0	766.1
32.5°	724.8	728.9	733.1	745.5	745.5
35°	700.0	704.2	710.4	724.8	726.9
37.5°	673.2	677.3	685.6	702.1	706.2
40°	644.3	650.5	662.9	679.4	685.6
42.5°	615.4	623.6	638.1	656.7	664.9
45°	584.4	592.7	611.2	634.0	644.3
47.5°	551.4	561.7	584.4	613.3	621.6
50°	516.2	530.7	557.5	588.5	598.8
52.5°	481.1	497.7	530.7	563.7	574.1
55°	444.0	462.6	503.9	536.9	549.3
57.5°	406.8	427.5	474.9	510.1	522.4
60°	367.6	392.3	444.0	479.1	489.4
62.5°	328.3	357.2	413.0	448.1	456.4
65°	287.0	322.1	380.0	410.9	419.2
67.5°	247.8	289.1	346.9	369.6	369.6
70°	206.5	251.9	309.7	315.9	303.6
72.5°	165.2	216.8	268.4	245.7	235.4
75°	126.0	183.8	210.6	190.0	183.8
77.5°	95.0	148.7	148.7	136.3	132.2
80°	66.1	113.6	99.1	86.7	80.5
82.5°	43.4	64.0	51.6	41.3	35.1
85°	22.7	24.8	14.5	12.4	10.3
87.5°	8.3	4.1	2.1	4.1	2.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)